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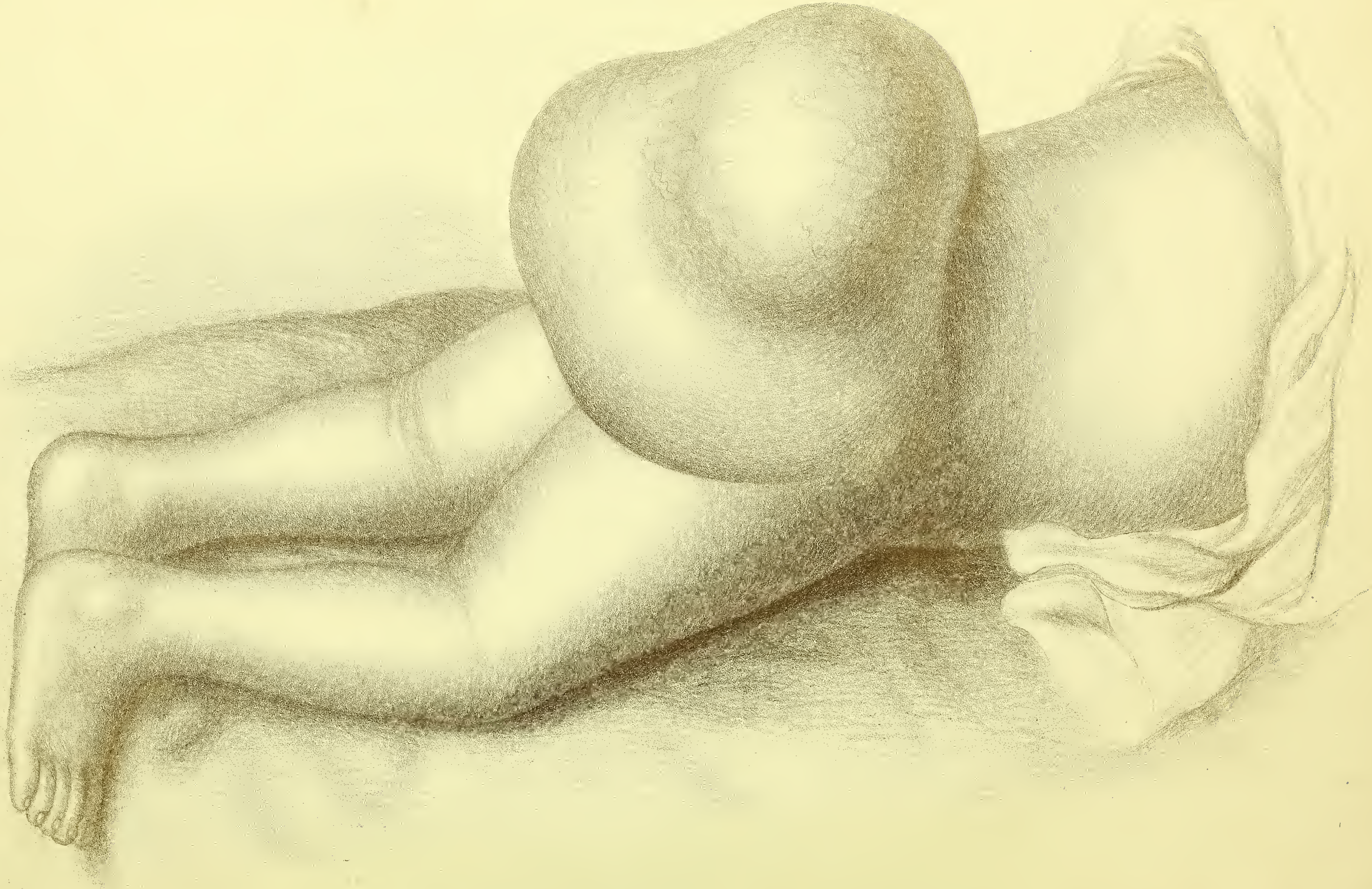

CONGENITAL COCCYGEAL TUMOUR.

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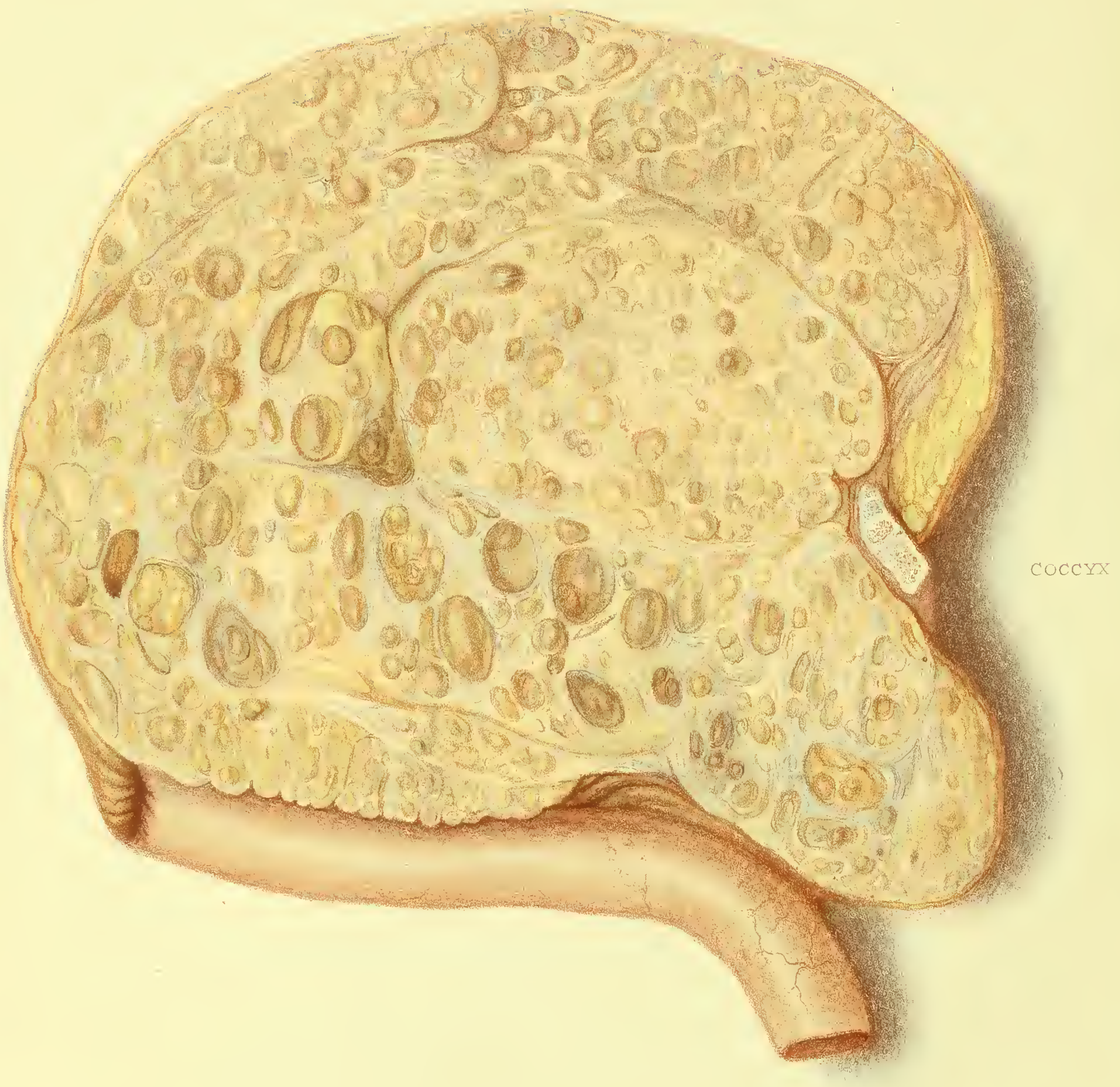

CONGENITAL COCCYGEAL TUMOUR.

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W. West & Co. imp.

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PLATES XLVIII AND XLIX.

CONGENITAL COCCYGEAL TUMOUR.

INFANTS are occasionally born with tumours in the neighbourhood of the coccyx, which have nothing in common with spina bifida and have no connection whatever with the theca of the spine. They are, in fact, placed much lower down than the usual position of spina bifida. The latter almost always affects the upper part of the sacrum, whilst the tumours, of which I now speak, originate between the coccyx and rectum, and bulging backwards displace and surround these structures. There is a strong superficial resemblance, however, between a large spina bifida and a large coccygeal tumour, and mistakes in diagnosis leading to errors in practice have resulted.

These congenital growths in the coccygeal region are by no means all of the same kind. Some, as in the case which these portraits illustrate, consist of a lobulated fibro-cystic mass, others contain fewer cysts or none, whilst a quite distinct group is characterised by the presence of parts of another fœtus. My own experience would have led me to the belief that those depending upon superfœtation are much less common than the fibro-cystic ones; but this does not appear to be the opinion of all. The tumour in all its forms is rare; and it has not fallen to the lot of any surgeon to observe many cases, nor are many detailed records of such to be found in surgical literature. The best summary of our knowledge respecting them with which I am acquainted is that given by Mr. Holmes in his work on 'Diseases of Children.' The cases present us with some interesting pathological problems, and they are also of considerable importance in respect to the question of surgical treatment.

The patient from whom these portraits were taken was a female child, originally under the care of Dr. Reilly, of Victoria Park, but who at six weeks old was admitted by my colleague Dr. Stephen Mackenzie at the London Hospital, and by him kindly transferred to my charge. She remained in the hospital about six weeks, and died at the age of three months. I had not ventured to attempt the removal of the tumour, being deterred in part by its very large size and dangerous position, and in part by the hope that it might diminish or, at any rate, not grow, and that when the child was older and bigger a more favorable opportunity for extirpation would be offered. The cause of death was exhaustion from inflammation of the skin over the tumour and of some of its cysts, which we had, perhaps unwisely, punctured.

When I first saw the infant the conditions were exactly those shown in Plate XLVIII and in Woodcut, Fig. 16.

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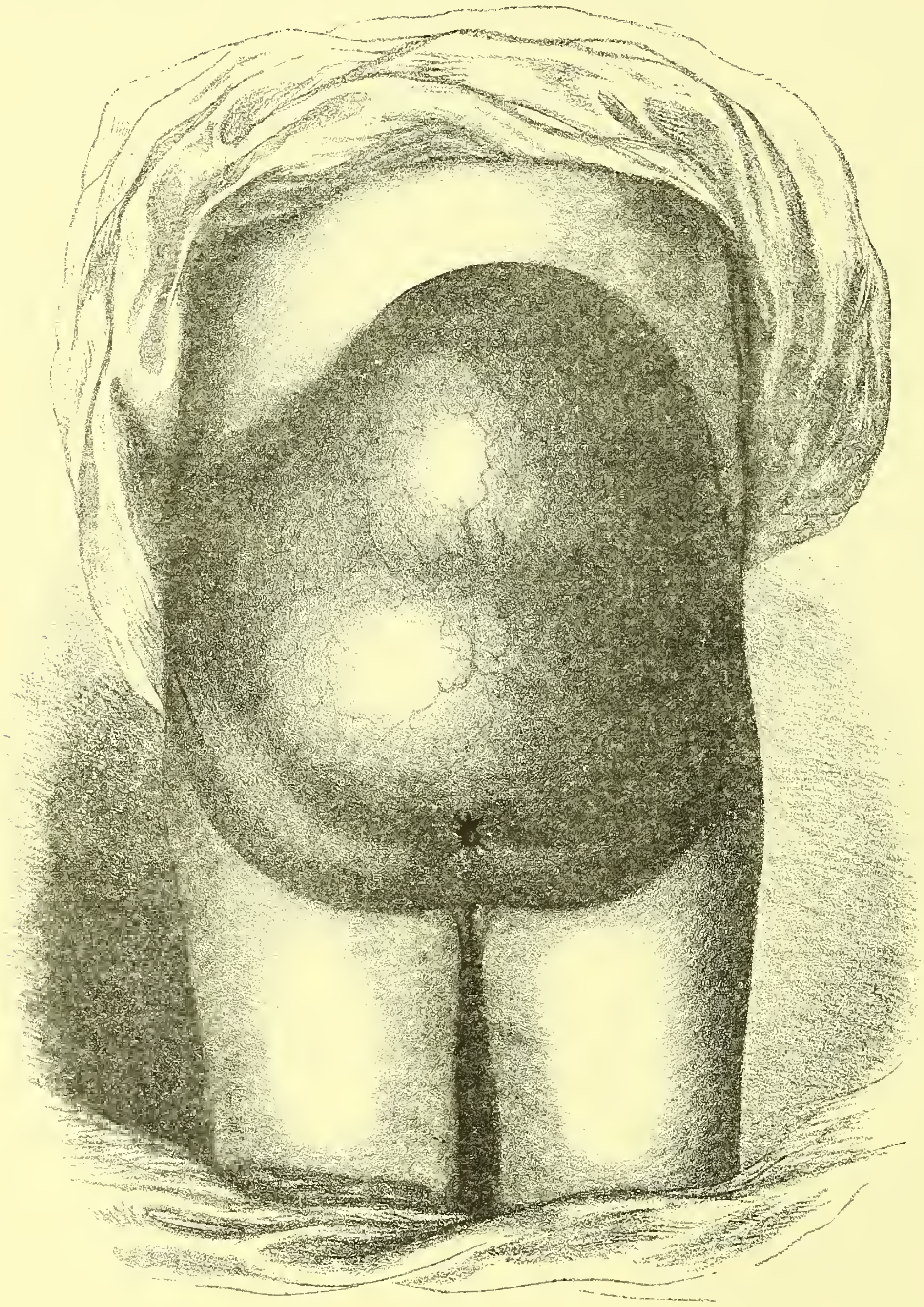

Fig. 16.—*Showing the tumour as seen from behind.*

The tumour was as large as the child's head and overhung the anus, dragging down the bowel. It presented some shallow depressions on its surface in proof of a certain degree of lobulation, and though placed almost exactly in the middle line its growth was rather greater on the right than left. It involved both buttocks. Its circumference was fifteen inches, and from the anus over the top of the tumour to the first vertebral spine which could be distinguished, was a length of ten inches. It felt firm, but with fluctuation in certain parts. The skin over it was thin in the middle and adhered closely, but at its base it was loose. When the finger was passed into the bowel a soft solid mass was felt surrounding the rectum above and on the sides. The tuber ischii was easily felt on the left side, but not on the right. The coccyx could not be distinguished nor the sacrum reached. During the child's life we had frequently discussed the propriety of removing the mass, and after its death I was especially interested in ascertaining whether an operation would have been practicable. By curved incisions on each side, it was easy to reflect flaps of skin which would have covered the wound. On approaching the spine the growth was found adherent to the bones, and not wishing to disturb its relations I cut through the sacrum at its lowest part and found afterwards that the coccyx and part of sacrum were embedded between lobes of the tumour. One large mass overlaid the sacrum above, another projected into the pelvis between the bowel and the bone and filled the sacral hollow. This lobe, as large as an infant's fist, was covered with peritoneum, and although with care I think it might have been dissected out, it is not probable that such would have been the result in an operation. Nearly six inches of the rectum, much displaced downwards, were imbedded in the tumour. The adhesions to the bowel were only loose and might easily have been separated. The removal of the tumour during life would have required a prolonged and careful dissection, and would probably have been attended by much loss of blood. In all probability it would have resulted in a large opening into the peritoneal cavity, and a long tract of the bowel would have been exposed. The wound left would have been, in proportion to the infant's body, an enormous one, and the shock would probably have been very severe. Still there would have been nothing encountered which wholly precluded the chance of recovery, and the tumour might have been taken away entire.

Plate XLIX admirably shows the appearances on a vertical section through the length of the tumour. It was composed of cysts of various sizes, from a pea to a chestnut. These cysts had smooth epithelial linings, and contained a glairy transparent fluid. The fibrous dissepiments were thick and strong. The relations of the rectum to the tumour are well shown in the portrait, as also the position of the coccyx, which was cut through and left *in sitû.*

Beneath the coccyx is the lobe which has been already mentioned as projecting upwards into the pelvis.

Before giving the detail of its structure I will introduce some portraits of similar cases, in order to prove that these congenital coccygeal tumours bear a close resemblance one to another.

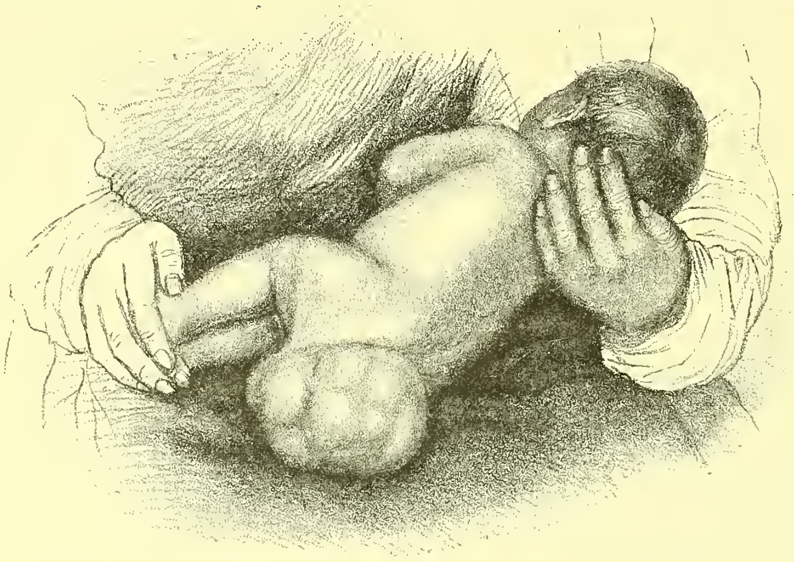

Fig. 17.—*Congenital Coccygeal Tumour.* (*Dr. Preuss' case.*)

This woodcut (Fig. 17) has been executed from a photograph which I purchased some years ago in Vienna. It represents a large congenital coccygeal tumour, which hangs low down. The printed information on the back of the photograph states that the child was born in January, 1869, at Schlaiwen, near Dirschau, in Prussia, and that the tumour contained an included fœtus. It was under the observation of Dr. Preuss, Sanitatsrath of Dirschau. See 'Medical Times,' April, 1869, page 374.

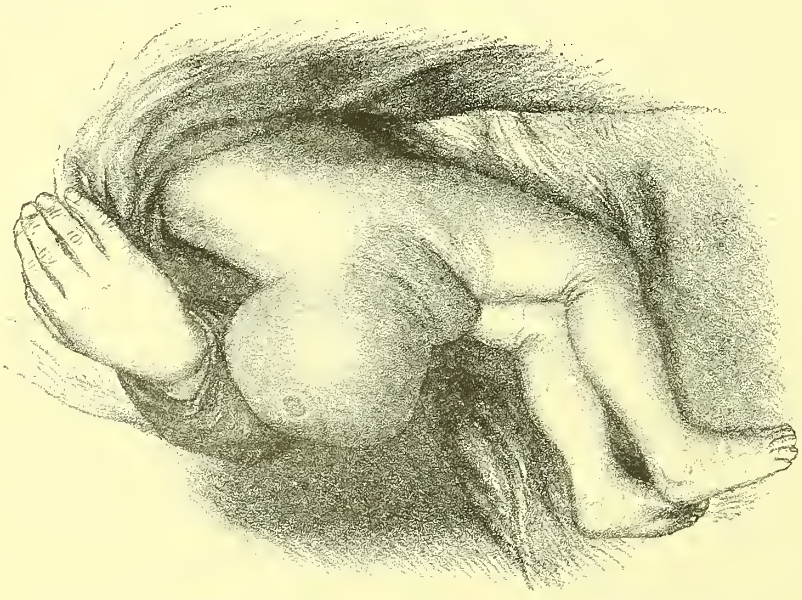

Fig. 18.—*Congenital Coccygeal Tumour.* (*Dr. Wilson's case.*)

The photograph from which this woodcut (Fig. 18) is taken was given me some years ago by Dr. W. J. Wilson, of Clay Cross, Chesterfield. The tumour was at first supposed to be a spina-bifida. Its excision was performed, and it was found to surround the coccyx and rectum and to consist of cellular tissue and fat. The rectum was laid bare for an inch, and part of the coccyx was cut away. The infant did well for ten days, when it sank under an attack of diarrhœa. The tumour had appeared to be growing rapidly.

My next woodcut (Fig. 19) is also from a photograph lent me by Dr. Wilson. It is from a sketch of a still-born infant. I introduce it without being able to give any particulars as to the nature of the tumour, excepting that it consisted of areolar and fatty tissue, because it shows the largest tumour of this kind which I have ever seen delineated. It appears to have displaced the rectum much, as in my own case. The child was delivered by Dr. Cornelius Black, late of Chesterfield.

I possess yet another portrait of a very large pendulous tumour in this region. It is part of the collection of the late Mr. Partridge, and, unfortunately, no facts as to the case are forthcoming. It so closely resembles those which I have figured that, under the circumstances, it is scarcely worth reproduction.

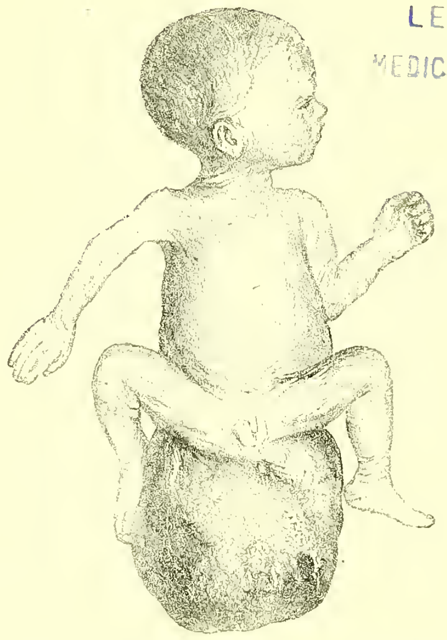

Fig. 19.—*Enormous Congenital Coccygeal Tumour. (Dr. Cornelius Black's case.)*

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Microscopic Anatomy of the Tumour.—Suggested origin in Luschka's Coccygeal Glands.

When it is found that a special region is liable to some peculiar kind of outgrowth, we naturally inquire whether there may be any specialised structure in that region in which such growths may originate. It appears tolerably clear that the coccygeal region is liable to a peculiar kind of congenital tumour, and the suspicion arises that there must be some structure there placed which is their nidus Now, there are present in front of the coccyx certain structures—glandular, or nervous, or both—which were described by Luschka in 1860, and which have since received the name of "coccygeal gland." They are vascular plexuses closely allied to cavernous tissue, and consist, according to their discoverer, of "fibrillar connective tissue, with numerous oblong nuclei, containing closed, roundish vesicles, and simple or branched, slightly varicose tubes, which are composed of a delicate, structureless, basement membrane, lined by an epithelium-like layer of round or slightly polygonal cells, replaced in recently born animals by true ciliated epithelium." Whilst Krause's observations have confirmed Luschka's statements as to the presence of gland elements, others (Arnold, Sertoli, &c.) have thought that the structures are rather of a vascular nature. Eberth,* who gives a good summary of what has been established, inclines to the latter view, and proposes that they should be called the "plexus vasculosus coccygeus." It is a suggestion worth keeping in mind that congenital tumours such as I have described may possibly originate in connection with the structures referred to.

The tumour from my own case was carefully examined independently by my colleague Dr. Mackenzie, and by Mr. Alban Doran, of the Royal College of Surgeons, and with closely similar results.

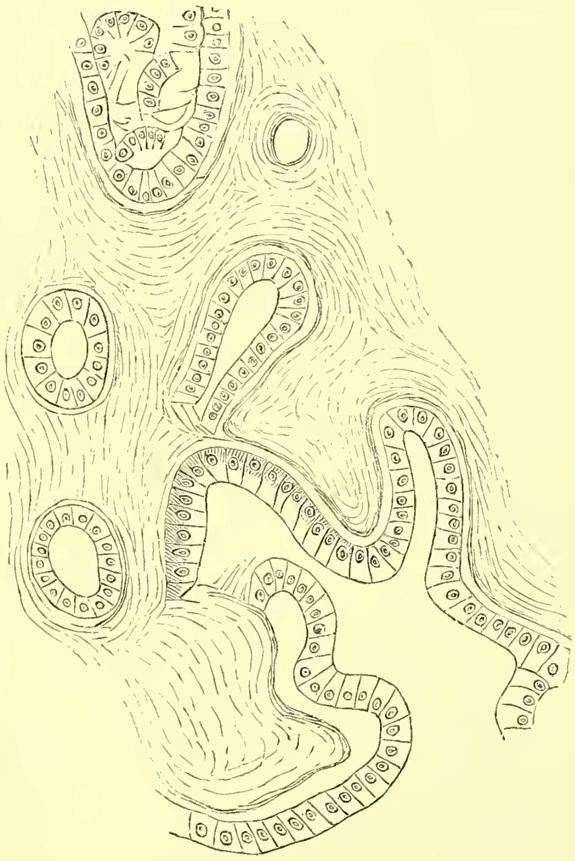

FIG. 20.—*Section of tumour showing tubes lined with epithelium* (Hartnack, Obj. 3, oc. iii).

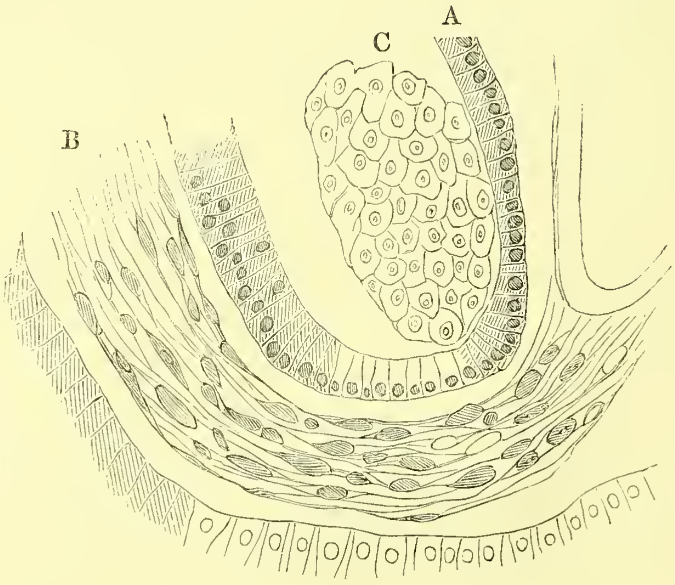

FIG. 21.—A. *Columnar epithelium of tube.* B. *Delicate connective tissue of matrix.* C. *Clump of spherical epithelium in interior of tube* (Hartnack, Obj. 7, oc. iii).

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* See Vol. I of the New Sydenham Society's translation of Stricker's 'Comparative Histology.'

Dr. Mackenzie's report is as follows:

"On section the tumour presented a loculated or honeycomb appearance, the whole mass of the growth being of spongy structure.

"On microscopic examination the tumour is seen to be a cylindrical epithelial growth. There are numerous tubes, much convoluted and with saccular dilatations, lined by cylindrical epithelium. The tubes have some signs of a basement membrane, and it will be observed everywhere, but is best seen in the more magnified, Fig. 21; that they shrink away in most parts from the matrix in which they are embedded. The latter is an abundant, but delicate, connective tissue, with numerous thin-walled vessels. Bulging into some of the tubes are clumps of many delicate, more or less spherical, epithelial cells, as shown in Fig. 21. At some places at the base of the cylindrical cells lining the tubes there are spherical and flattened epithelial cells, some of large size containing two or more distinct nuclei, besides nuclear molecular matter.

"The growth appears to be a cylinder-cell, epithelial cancer, taking its origin from some cylindrical-celled organ, which from its situation would probably be some part of the intestine, as the rectum, or the ovary. The growth shows a tendency to revert from a pure columnar to a spherical epithelium."

The appended woodcuts are from Dr. S. Mackenzie's pencil.

Mr. Doran inclines to regard the tumour as a cystic sarcoma rather than cancer. He writes:—"The coarse white lines traversing it in all directions are undoubtedly white fibres; but the soft material in the areolæ is entirely made up of spindle cells and small cysts, hence it is pathologically a spindle-celled sarcoma." "The spindle cells and epithelial cells are the two sole forms of cell to be found in any part of the growth. The perfect capsulation, too, shows that the tumour is not carcinomatous, and the resemblance of spindle cells massed round the small cysts to the "nests" of epithelioma is only superficial. Mr. Doran mentions in his report Mr. Mason's specimen,* which, he says, is a lymphadenoma, and adds, "but your specimen can hardly be of the same character." "The large cells have all the appearance of epithelium, and where the section is pencilled to remove them, no trace can be seen of the adenoid reticulum of lymphatic growths. Of course the cysts in this tumour are true embryonic formations, as their perfect linings show."

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* Mr. Francis Mason has published, in the 'Pathological Transactions,' a case in which a child of sixteen months died with a large tumour under the sacrum. It was not known to have been congenital, and the child had been quite well until about nine weeks before admission. In favour, however, of a supposition that it might have been congenital was the fact that a sister of the patient (alive and æt. 9) had a congenital cystic ? sacral tumour. The infant's tumour enlarged and pressed upon the bladder and rectum, and finally caused death. On dissection it was found to be placed between the sacrum and rectum, and was "about the size of a fœtal head." It was soft and greyish, and was pronounced by Mr. Stewart, the Pathological Curator at St. Thomas's, to have the microscopic structure of lymphadenoma. There were no other growths in the body.

With the greatest possible respect for the results of histological examination, which my friends have so kindly placed at my disposal, I cannot help feeling some doubt whether the growth in this case would have followed the course, either of sarcoma or carcinoma. There was no evidence of tendency to infect either the glandular system or the viscera, and could it have been safely removed, it is, perhaps, not improbable that the child would have remained without recurrence. The facts are, however, but very scanty as yet on which to base such an opinion. We know neither the history nor the results of microscopic examination in similar cases. It is, however, not common for congenital tumours to prove malignant in their course.

As regards treatment, we ought, I think, to assume that these tumours are innocent, and if their removal by excision appear practicable, it should be attempted. It may be a question of some importance as to the age at which the operation should be performed, and in deciding this the surgeon will be guided by the state of health of the infant. If the health be well kept up, it will be better to wait awhile, unless, indeed, the tumour be growing.

A Case of Spina Bifida with Hydrocephalus.

This woodcut does not properly belong to the subject under discussion, but I introduce it here in order to show the contrast as to position between a spina bifida and a coccygeal tumour. It will be seen that the tumour, a sacral spina bifida, does not project over the anal region in any degree, but rises up in the back. I have seen cases of spina bifida in which the tumour passed more or less under one buttock, but never any in which the coccyx was concealed or the growth overhung the rectum.

This portrait is valuable because it demonstrates the connection between spina bifida and hydrocephalus. This association, as I pointed out many years ago, is very common, and is probably due to the fact that the central canal of the cord remains pervious, thus allowing of communication between the ventricles and the sub-arachnoid spaces of the cauda equina.

In many cases of spina bifida, but especially in these, pressure on the spinal cyst will produce brain symptoms, the fluid passing freely up into the skull. It is, of course, possible that this may be by escape of fluid into the arachnoid cavity; but usually the fluid of spina bifida is in the sub-arachnoid space, and could only gain access to the head through the spinal canal, the fourth ventricle, and the iter, &c. If we admit the frequent association of these two lesions we gain important light as to the cause of spina bifida. It is probably due to sub-arachnoid dropsy of the cord in intra-uterine life, by which the membranes are bulged and the bones, as yet undeveloped, are prevented from consolidating.

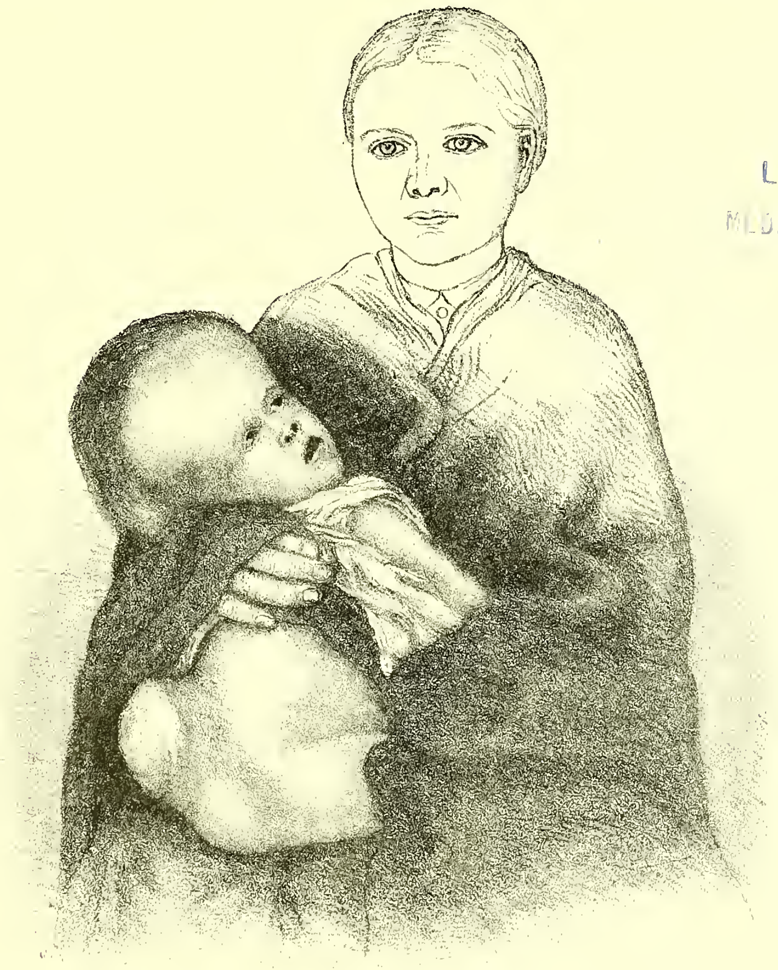

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Fig. 22.—*Spina bifida, with Hydrocephalus.*

Note.—Just before going to press I have found, thanks to Dr. Neale's 'Digest,' that Luschka himself suggested that the gland he discovered might be the seat of congenital tumours, and that his suggestion was confirmed by Heschl, who found a tumour the size of a nut in this position. For abstract, see 'British and Foreign Medico-Chirurgical Review' for 1862, vol. i, page 525.

The following extract, for which I am indebted to Dr. S. Mackenzie, is of much interest:—

In this week's 'Centralblatt für die Medicinischen Wissenschaften,' December 21, p. 941. is a notice of a case, recorded by Menzel in Langenbeck's 'Arch.,' xxii, § 691, of Congenital Sacral Tumour. "The patient was a male, aged 19. The tumour, which had existed since birth, was removed by means of the galvano-cautery (result not given in notice). The tumour consisted for the most part of fatty tissue and cysts, and parts appeared of the nature of a cystic sarcoma. Distributed throughout the tumour were numerous thick nerve-trunks, many smooth and a few striated muscular fibres, islands of hyaline and reticular cartilage; and, finally, a piece of bone, probably the rudiment of a vertebra. The whole appearances render it probable that it was a fœtus in fœtu."

Fig. I.

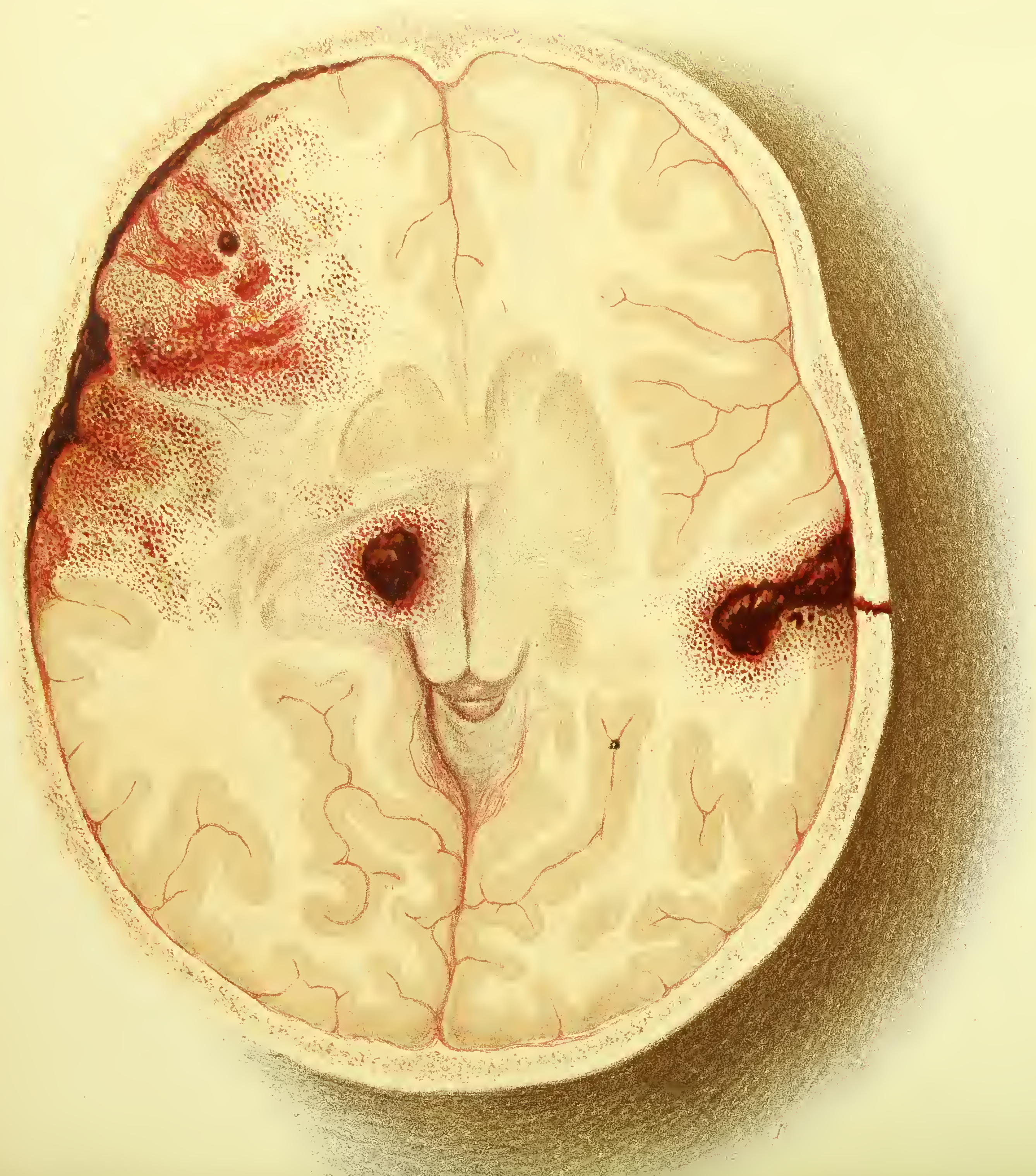
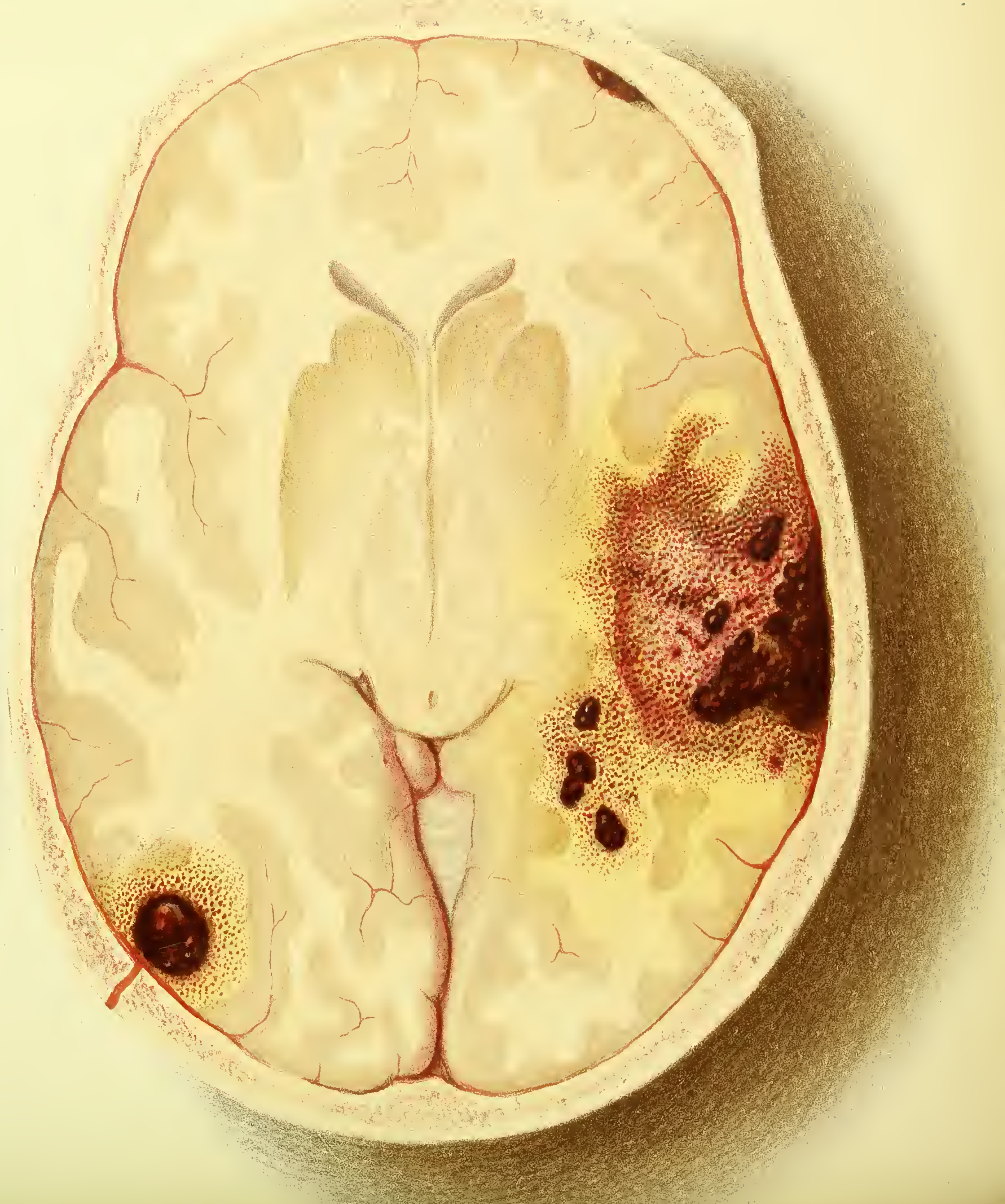


Fig. II.



FRACTURE OF SKULL & CONTUSION OF BRAIN

E. Burgess chr. lith. ad nat.

W. West & Co. imp.

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PLATE L.

TWO CASES OF FRACTURE OF SKULL AND CONTUSION OF THE BRAIN.

I HAVE chosen these two portraits for publication because they illustrate remarkably well the conditions produced by local contusion of the surface of the brain. It has seemed well to emphasize the lesson taught by placing the two side by side. In their main features they are remarkably alike. The right-hand figure is from the brain of an old woman, who died ten days after an injury in the street, and the left from that of a man of fifty-three, who died on the fourth day after a violent blow on the head. A detailed account of the symptoms in each will be appended. In each case the skull was fractured, but without permanent depression, and in each, immediately beneath the fracture, the brain was contused and some blood extravasated. It is highly probable that in both at the moment of the infliction of violence some depression of the bone occurred, and thus is to be explained the subjacent injury to the brain. The main interest of the two portraits is, however, that they show so definitely the effects of *contre-coup*, or of damage to the brain-mass, by its propulsion against the bone at a part almost exactly opposite to the site of fracture. In each specimen it will be observed that the contusion of the brain-mass opposite to the fracture is far more extensive than that immediately beneath it. At the part named a large extent of the surface of the hemisphere is contused and speckled with blood, and in both these evidences of bruising extend deeply. In both there is a thin layer of blood in the arachnoid. In the left-hand figure there is an isolated blood clot in the thalamus, and in the other several small ones are seen deeply placed in the hemisphere behind the thalamus. The fact that in cases of fracture of the skull the brain-mass is usually contused at two opposite parts, one immediately beneath the fracture and the other on the opposite side, is most important, clinically. By it we explain the fact that in such cases the paralysis is always greatest in the limbs of the side on which the fracture is found, that is of those opposite to the part injured in *contre-coup*. This fact has long been partially recognised. In severe cases, such as were the two from which these specimens were taken, the general shaking of the whole cerebral mass is sufficient to induce at first almost total insensibility, and the patient rarely recovers consciousness sufficiently to permit of the degree of hemiplegia being accurately estimated. But in a few slighter cases, in which recovery is possible, the relative weakness of the limbs opposite to the contused part is sometimes very definite.

First Case, Fig. 1, Plate L.

Fall in the street; vomiting of blood; hemiplegia and imperfect consciousness; great restlessness; death on the tenth day; autopsy.

Nov.	5	S.	10 p.m.—An old woman fell in the street (believed to have been knocked down). Admitted in a state of insensibility (partial).
	6	𝔖.	Very restless; right hemiplegia, small and sluggish pupils.
	7	M.	Very restless. Pupils of medium size.
	8	Tu.	Very restless. Pulse 80. Right hand the hotter. Right hemiplegia, but no paralysis of right portio dura.
	9	W.	Pulse 92. Imperfect recovery of consciousness, but cannot speak intelligibly.
	10	Th.	Much the same. Tries to speak, and seems to comprehend what is said.
	11	F.	Pulse 112.
	12	S.	More feeble. Symptoms of congestion of lungs.
	13	𝔖.	Sinking. Increased difficulty in breathing.
	14	M.	Death from pneumonia and in imperfect coma at 3 a.m.

Autopsy.—*Fracture of base of skull; extensive laceration of left sphenoidal lobe, with red softening extending inwards towards the corpus striatum.*

On Sunday, November 6th, I saw the subject of the following case, Elizabeth Fenton, æt. 71. It was a question as to whether she had been knocked down or had fallen in a fit. She had been brought to the hospital by the police in the course of the previous evening. Both pupils were smaller than natural, but not extremely contracted; they were almost, if not entirely, insensible to light. She opened her eyelids equally well, but preferred to have them shut, and did not completely close those of the left eye. Her left eye always looked outwards, but she was able to move it slightly towards the middle line. Her left orbicularis was not paralysed, for when the left cornea was touched she closed the lids strongly. There was no very positive drawing of the mouth; if anything it was a little drawn to the right. She could frown on both sides of the forehead. She had been very restless during the night, and still was somewhat so. She could use her left hand pretty freely, could draw up the bedclothes, &c., and resisted forcibly when it was held. Her right upper extremity she rarely moved, and she appeared to have little or no power in the hand. She could move the limb at the shoulder. She never took hold of anything with this hand. She moaned and complained when disturbed, but would not speak. The left lower extremity she moved well, resisting at once when the foot was tickled. The right she could move a little, but with much less power. Her right foot was severely contused.

When admitted she was pale and insensible, but was roused sufficiently to tell her name on two occasions. Soon after admission she vomited several times, and on the first occasion brought up a considerable quantity of blood. No bleeding was noticed from any part, nor was any bruise found on the head.

7th, Monday.—She passed a very restless night, and is still very restless. She is secured in bed by a sheet tied over her, otherwise she would roll herself out. She is not able either to sit up or to stand, but still manages to get to the edge of the bed; she can only do this when lying on her left side. Her right limbs are almost completely paralysed. Her surface is still cool and face pale. The left eye looks outwards, but not very much so. She will not speak or put out her tongue, but when disturbed moans and mumbles. If the bedclothes are removed she quickly replaces them with the left hand. There is no decided difference of temperature in the two upper extremities. The pupils are of medium size. There is a cataract in the right eye. We are informed by her daughter that the left eye always looked outwards, and that she could not see well with it.

8th.—She has spoken several times to-day, has once asked for tea. Her mouth is not drawn to either side. Her tongue is dry and black. She will not open her mouth. Pulse about 80. She has been very restless most of the day, but is now sleepy. She still keeps her left eye a little open. Her right hand is hotter than the left. She can draw both knees up. Right hand, ulnar border, 85°. Left hand, ulnar border, 82·5°. Both hands had been covered some time under the bedclothes. She is believed not to have passed water to-day. Excepting in that she has spoken two or three times her condition is not much altered. During my visit she never spoke nor manifested any degree of rational consciousness.

9th.—Pulse 92, and variable in power, but not actually intermittent. Right hand cold, left much warmer (both were exposed). She can raise both eyelids, but not fully. When I came up to her bedside she seemed partially sensible, and was looking at her left hand, which she was holding up, but I could not get her to speak. When she has both arms in bed the difference of temperature between the two is not so marked. She looks up when you speak louder than usual, and she seemed to know her little granddaughter who came to see her. There is no perceptible difference of temperature between the two legs. When you tickle the left foot she can move it very well; when you tickle the right foot she moves it slightly, but she moves the left at the same time, and much more forcibly. Just now she seemed as if waking up from sleep, and stretched out her left arm and drew the child's head down to her own and tried to say something, but I could not catch what she said, neither could the child.

10th.—I asked her to put her tongue out and she said "I can't." The sensation in her right leg is, if anything, not so good as yesterday. When the nurse holds a teapot up to her mouth for her to drink out of she will take hold of it herself with her left hand and steady it.

11th.—She seems more conscious. Her pulse is 112, and very feeble. When we first came to her her arms were both equally covered up, and there is no doubt the right arm and hand are warmer than the left. She is still restless on waking, but when asleep is reported to snore. Pulse 100, more feeble. She still tries to get out of bed (to the left). Her water passes unconsciously.

Through the 12th and 13th she remained much as before, but got weaker, and her breathing more difficult.

Death at 3 o'clock in the morning of the 14th.

Autopsy.—No bruise was seen in the scalp, but on removing it we found a small bruise just above the right temporal ridge, in a line straight above the ear, about an inch and a half from the vertex. With this exception there was no evidence of bruising on any part of the skull. There was a little blood between the dura mater and the bone on the squamous part of the right temporal bone, and a fracture was found at this spot. The line of fracture crossed the squamous part of the temporal bone horizontally, near its middle, and gained the temporo-parietal suture, about an inch from its posterior extremity. This suture was loosened. The temporo-occipital suture was also loosened through its whole length, and there was a little effused blood between the dura mater and the bone marking the whole length of the suture. Anteriorly the fissure in the squamous portion extended forwards and downwards, and was lost in the greater wing of the sphenoid. Very probably a fissure extended into some part of this bone (pterygoid processes) adjacent to the pharynx, thus explaining the fact that the woman vomited blood soon after accident. There was no laceration of the dura mater at any part. The portion of the posterior lobe in immediate contiguity with the separated suture showed a patch of ecchymosis into its structure as large as an hazel nut, and around this patch there were numerous minute dots of extravasation. A thin layer of dark blood was smeared over the whole interior of the arachnoid cavity, adhering in small patches to the parietal layer. On the side opposite to the fracture there was very extensive contusion of the sphenoidal lobe, and of the side of the hemisphere immediately adjacent to it. Beneath the sphenoidal lobe there was a soft, dark, blood clot (probably scarcely less than an ounce) and blood was besmeared over all parts of the arachnoid sac. As on the other side (and as I have noticed in other cases) it adhered rather to the parietal layer of membrane than to the visceral layer. The middle of the outer part of the hemisphere presented an excellent specimen of acute red softening; it consisted of a pulpy brown mass, almost diffluent, in which clots of blood were seen. The brain substance surrounding this patch was dotted with ecchymoses, and around these the tissue was stained of a bright pine-apple yellow by the infiltration of blood-colouring matter. These conditions are well shown in the coloured drawing. No lacerations of brain structure were discovered at other parts, nor any extravasations. The pia mater was much congested everywhere, and at many parts seemed to be ecchymosed. The vessels of the brain were very extensively atheromatous. The lungs were much congested, especially at their posterior lobes, and showed large patches of grey hepatisation. At these parts the lung tissue was quite rotten, and was full of serum. Nothing particular was noted in the viscera of the abdomen.

SECOND CASE, FIG. 2, PLATE L.

Blow on the occiput; complete insensibility; symptoms of compression closely simulated; death; contusion of brain and extravasation into thalamus opticus.

Aug.	13	S.	A man, æt. 31, was struck a very violent blow on the left side of occiput. *Admission.*—Complete insensibility; puffing of cheeks.
	14	𝔖.	Some reflex movements of right limbs and side of face; scarcely any on left side. Contracted pupils.
	15	M.	Continued complete insensibility. Increasingly complete hemiplegia of the left limbs and side of face.
	16	Tu.	2 p.m.—Coma. Reflex movements of right limbs and side of face; none on left side. Paralysed limbs hotter than others. 9.15.—Death in coma with contracted pupils and rapid pulse.

AUTOPSY.—*Severe contusion of under surface of right sphenoidal lobe and hæmorrhage into optic thalamus.*

I did not see the subject of the following case until the third day after that of his admission. I then received from the house surgeon and dresser the following particulars:—The case is one of great importance and interest on account of the close approach of the symptoms to those of compression.

William Chapman, æt. 50, a labourer, was admitted on Saturday, August 13th, having been struck on the occiput by the handle of a crane, which threw him forwards with great violence into a barge. When admitted he was quite insensible; his cheeks puffed too and fro in breathing. From the commencement he passed his urine and fæces unconsciously. The report is that his left lower extremity has never been moved since he came into the hospital. He has been freely purged by croton oil. His left arm, however, he did move a little on Sunday, *i. e.* when it was straightened by the dresser he suddenly drew it up again. On Sunday also it was observed that he resisted irritation to the left eye not nearly so quickly as in the case of the right. He still possesses the power when the right eye is irritated of lifting his left eyebrow a little. This is the only motion we ever observe on this side of the face. We tried over and over again irritation to his left eye, but never produced the slightest movement. From the first and throughout his pupils have been contracted to a very small size and fixed.

On the 15th (Monday) he was much in the state above described. He was quite unconscious, lying on his back breathing deeply, but without stertor. It was observed that his trachea moved up and down in his breath movements. His pupils were, as stated above, closely contracted. He never moved his left limbs. The question as to the propriety of trephining was earnestly discussed. The completeness of the insensibility, although the circulation had fully rallied, seemed to indicate the probability that compression existed. The fact that the left limbs and side and face were paralysed, as shown by the absence of all reflex movements on irritation, indicated the probability that the source of compression was on the opposite side, and this fitted with the fact that he had been struck on the right. On the other hand, the facts that he had no stertor in breathing, and that his left side of face and left limbs still possessed sensation and the power of reflex motion, were against the hypothesis of diffused and general compression, and indicated rather the existence of a local lesion. The operation was not performed.

16th, 2 p.m.—Present condition.—Both hands pungently hot. Pupils greatly contracted, although he is quite in the shade. His right ear is hotter than the left. He is lying on his back with his mouth open, and breathing with slight stertor. He is quite unconscious. When his right eye is touched he contracts his orbicularis strongly, and also moves his right hand. When his left eye is touched he neither contracts the orbicularis nor resists the irritation in any way. He frequently moves his right hand, lifting it slowly to his face, scratching his body, &c. His left hand he never moves. Each inspiration is attended by a descent of the larynx of at least an inch, and by a lifting of the tongue. His tongue is quite dry, and his lips stick to his teeth. His face is dusky and congested. Scalp hot, but not extremely so. There is a wound of the scalp, about an inch in length, on the left side above the occiput. Both feet are pungently hot; when the right is tickled he will move the toes a little, but he never draws the foot up; he does not move the left in the least under any amount of irritation. Right hand, between thumb and forefinger, 99°. Left hand between thumb and forefinger 101° nearly. Right foot 98°. Left foot 100°. There is not the slightest evidence of injury to the right side of the skull.

8.30 p.m.—Right hand 98°. Left hand 99°. Right foot 95°. Left foot 96°.*

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* I have allowed these notes of relative temperature of the extremities to stand as they were written out many years ago. I now rarely record the temperatures of the hands and feet, knowing that the fallacies respecting such observation are exceedingly numerous. A very slight difference as to exposure may make one hand or foot a few degrees hotter or colder than its fellow.

Pupils still contracted. Pulse not to be counted, very feeble, and rapid. He died about 9.15.

Autopsy.—At the base of the brain on both sides were numerous spots of ecchymosis, most of them small. There was a group about as large as shots beneath the sphenoidal lobe on the left side. On the right side the outer part of the anterior lobe and of the middle lobe was completely broken up by contusion. At this part there was a considerable mass, perhaps an ounce, of coagulum in the arachnoid cavity. These lobes were also much contused on their under surfaces. The brain structure was disorganised from the surface inwards to near the corpus striatum. There was a considerable isolated clot of blood in the right thalamus. There was a limited patch of contusion on the outer side of the right hemisphere, just opposite to the fracture in the skull. The cerebellum was not materially injured, but there were patches of ecchymosis in its pia mater at several parts. The skull was unusually thin. In the left parietal bone was a fracture, which passed obliquely downwards and forwards through the squamous plate and the greater wing of the sphenoid. There was no existing depression, but probably at the time of the accident depression had been caused, for there was a laceration of the dura mater a little behind the line of fracture. An anatomical peculiarity existed in the skull of this man; ossification being incomplete in the orbital plate of the frontal on both sides, and a hole being left, which was closed only by membrane. The position of the lines of fracture are shown in folio 4 of the 'Atlas' which accompanied my prize essay, and the state of the orbital plates in folio 6.

N.B.—The reader is especially requested to observe that both these plates represent the parts as seen from below and not from above. The hemispheres are in the calvaria, and the latter rests upon its top. I always adopt this method of autopsy in cases of injury to the head. The calvaria is sawn completely through everywhere, the line being kept as exactly circular as possible; then with a large knife the membranes and brain are sliced through, and the whole removed in the skull-cap. This plan much facilitates exact observation of the relative positions of parts, and prevents the risk of additional injury being caused by post-mortem violence.

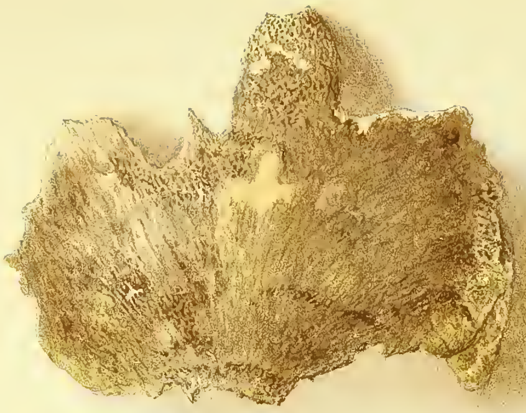

Fig. I

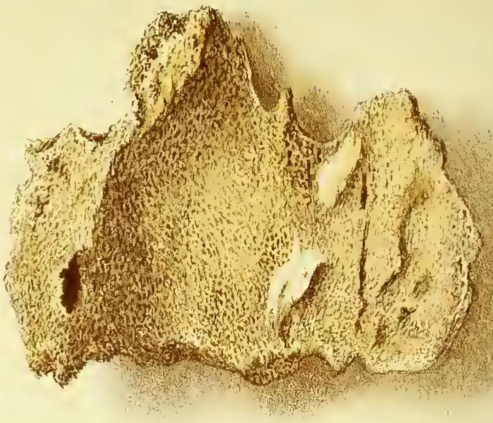

Fig. II

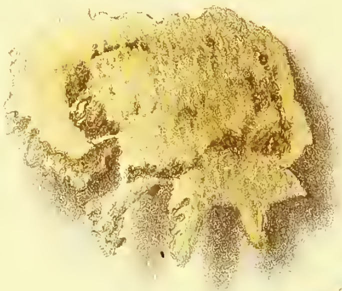

Fig. III

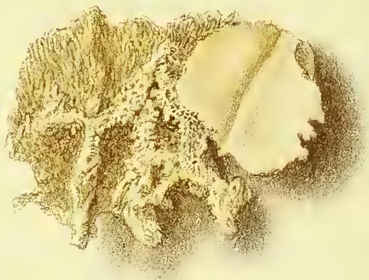

Fig. IV

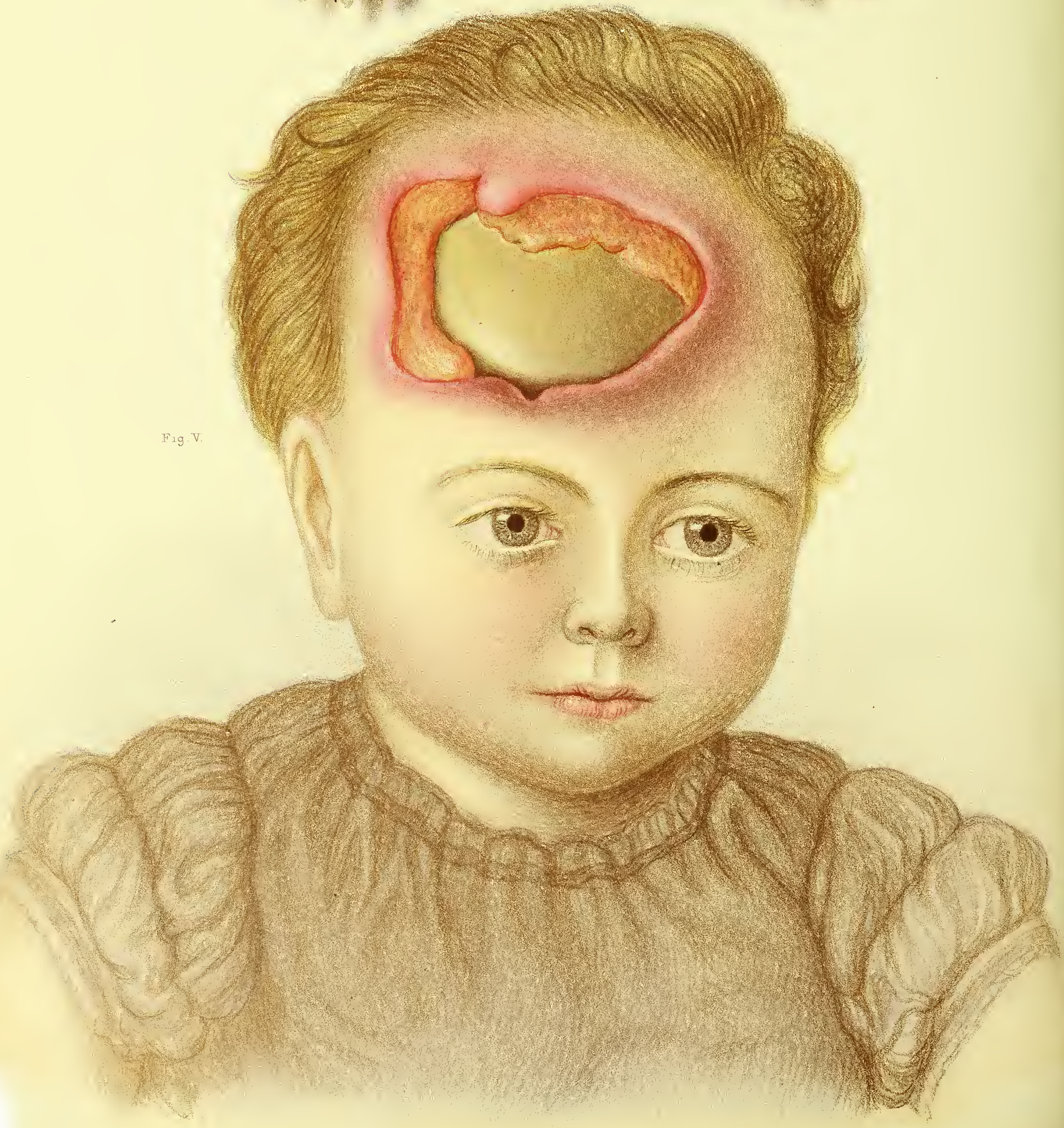

Fig. V

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PLATE LI.

EXFOLIATION OF THE SKULL AFTER INJURIES.

In former portraits I have illustrated the occurrence of fatal inflammation of the skull-bone after contusion (see Plate XIX for the state of the bone, and Plates XVIII and XX for that of the dura mater and sinus). In these cases, as a result of laceration of the scalp and tearing up of the periosteum with bruising of the bone, diffuse osteitis occurred, and the veins becoming implicated, the process spread to the superior longitudinal sinus. A thrombus was formed and pyæmia ensued. The danger in these cases is not solely in the direction of pyæmia, for at the same time there is usually implication of the dura mater beneath the gangrenous bone and arachnitis over the hemisphere. Thus meningitis and phlebitic pyæmia contend with each other as to which shall kill the patient; the former is usually the more rapid and the latter the more sure. It does not, however, always follow because portions of skull-bone have been contused so as to cause death of the injured part that dangerous consequences will ensue. Sometimes a fragment of considerable size may undergo necrosis, become loose, and be removed, and the patient may recover. It is to illustrate this process that the present portrait is devoted. The sketches were taken from two different patients, in each of whom a considerable fragment, comprising the entire thickness of the bone, was detached. The safe exfoliation of small fragments, especially when compound fracture has occurred, is by no means uncommon, but it is, I fear, a rare event to witness this result in cases where the contusion is as extensive and severe as in these two cases. Not unfrequently even when the fragment is small phlebitis and pyæmia result. The tabular statement of causes of death after injuries to the head, given at page 66, contains several of this kind. Respecting the influences which determine the result to exfoliation on the one hand, or diffuse osteitis and pyæmia on the other, we know but little that is certain. It may be plausibly suspected that hospital air and the neglect of antiseptic precautions may in some cases take a share in bringing on the untoward event. Of late years I have always treated laceration of the scalp by means of a compress soaked in a strong spirit lotion, and with, I think, much better results than formerly, when only dry dressings or water were used. It is often an important point for consideration whether it might not be well to perforate the portion marked out for necrosis with the trephine and thus diminish the danger from accumulation of inflammatory products beneath. This was the practice advocated by Pott.

The following are the particulars of the cases illustrated :

Figs. 1 and 2 show the fragment of bone exfoliated in the case of the child whose portrait is given.

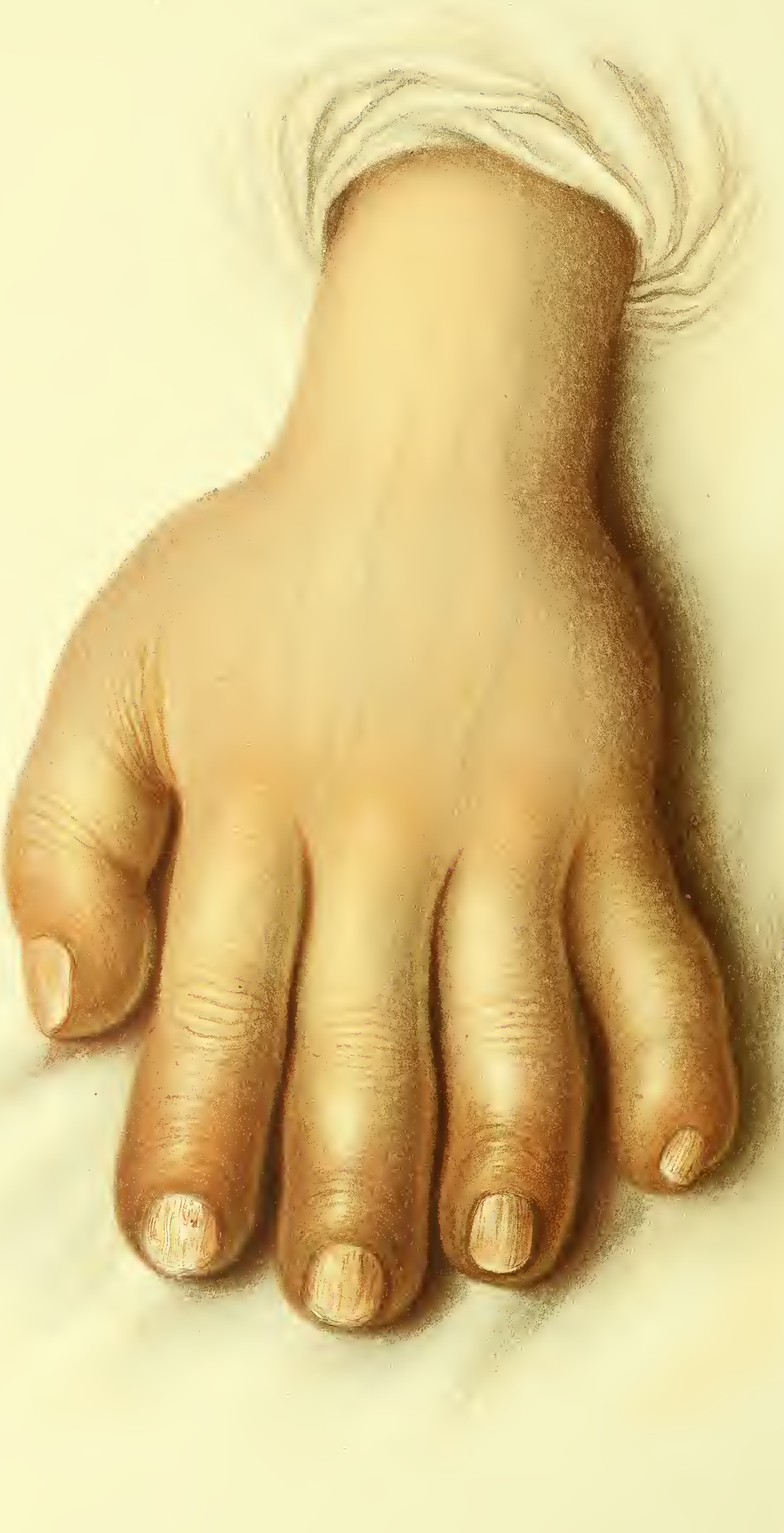
Mark Connor, æt. 3, a healthy boy, was admitted under my care on October 10th, 1863, having had his head jammed between a cab wheel and the kerb. The scalp was extensively torn, and a large portion from the forehead sloughed. The boy never had any material cerebral symptoms, but during the first month that he was in the hospital he was feverish, and we were frequently made anxious lest meningitis were impending. The wound was treated by poultices.

On December 23rd his parents were allowed to take him home, the wound being in the condition shown in the portrait. This was two months after the accident, and at this date the bone appeared to be fixed. He attended for some months as out-patient, the sore being protected by zinc dressing and a bandage. On October 12th, 1864, exactly a year after the accident, he was readmitted, and I removed the fragment, which was now quite loose, excepting one small portion at the upper edge which had to be broken through. Beneath was a bed of healthy granulations bathed in good pus. No pulsation was discovered at any part, and on touching the surface it appeared to be everywhere firm and bony. The boy had grown well during the year, and had the aspect of perfect health, being stout and ruddy.

The fragment removed was almost wholly smooth externally (see Fig. 1), but much roughened on its inner aspect. Its inner border comprised the longitudinal ridge with the groove for the termination of the superior longitudinal sinus. This ridge is strongly marked, and the foramen cæcum can be distinguished; but, as the surface is rough, probably a thin layer of the inner table was left adhering to the dura mater.

Figs. 2 and 3 show the upper and under surfaces of a portion of bone exfoliated from the right parietal in the case of a boy, nine years old. In Fig. 2 it will be seen that a portion of the inner table, nearly as large as a shilling and with a deep groove for an artery, is included in the necrosed fragment. The boy, Joseph Woods, was knocked down in the street on the night of the illumination in honour of the arrival of the Princess of Wales (March 10th, 1863), and was much injured by the wheel of a van. The scalp was extensively torn up over the right parietal eminence, and the bone laid bare. There was some bleeding from the right ear. He was repeatedly sick after admission into the hospital, and he remained sleepy and stupid for several days afterwards. He was never unconscious, and could always be roused to put out his tongue. In the course of a few days the symptoms of concussion passed off. A large surface of bone remained quite bare, and became gradually of a greenish tint. Poultices were used. For two weeks there were no ill-symptoms, excepting occasional headache, and food was taken well. In the third week the boy became ill, and the wound lost its granulations. There was repeated sickness, much headache, great restlessness, and rapid loss of flesh. After a while these very threatening symptoms passed away. The bone became loose and was removed in the end of June, about three months after the injury. The boy recovered well, and the wound at the time of his discharge, on July 11th, was almost healed.

I think there can be little doubt that meningitis was present at the time the boy was ill.



L. Burgess del. ad nat. et chr. lith.

W. West & Co. imp.

A PECULIAR FORM OF ARTHRITIS OF FINGER JOINTS.

(*Mabey's Case.*)

PLATE LII.

A PECULIAR FORM OF INHERITED GOUT (LAST-JOINT ARTHRITIS).

The portrait here given illustrates a very peculiar form of arthritis of the digits, which occurs now and then in young persons who inherit a tendency to true gout. It is from the hand of a girl named Mabey, who, at the time of the sketch, was about seventeen years of age, and had suffered from the arthritis for several years. Her father was the subject of gout. In her the joint disease was wholly different in its course from common gout. It was persistent and not paroxysmal, was attended by but little pain, and had no deposit of lithate of soda. All the fingers and both thumbs of both hands were similarly affected. The disease fell with greatest severity in the terminal joints, but the second joints were also implicated, and the whole finger greatly swollen. There was at the time the sketch was taken some general swelling of the knuckles and back of the hand, but a little later this passed off, and the clubbed enlargement of the lowest halves of the fingers, and especially of their ends, became more conspicuous. The swollen parts were the seat of dusky congestion, which was increased by exposure to cold. As I have said there was but little pain, and the condition persisted without paroxysms and with but little change for several years. In 1867 I showed the girl at a meeting of the Hunterian Society. At a later period the enlargement began slowly to subside, and for some years past it has almost wholly disappeared. The subject of the case, now a married woman, twenty-six years old, is still alive, though suffering from advanced phthisis. Her fingers have for long ceased to give her trouble, but the terminal phalanges are displaced forwards, and the whole of the part, which was formerly swollen, is now considerably wasted; especially the finger pulps have much atrophied. None of the joints are anchylosed, but they are all, to some extent, stiffened, and in some grating may be produced on movement. The patient can use her hands for all ordinary purposes, but they are liable to ache in cold weather.

It may be suggested that the malady is a form of the protean disease known as "rheumatic gout," but I doubt much whether we shall gain anything if that be admitted. It is, at any rate, a highly specialised form and differs much from all others with which I am familiar It is not attended by the usual rheumatic pains; it is persistent, and but little influenced by season or weather; it affects the digital joints only, avoiding all others in the body; it persists for years and then undergoes spontaneous subsidence. It occurs, so far as I know at present, as an inheritanee, not of rheumatism, but of true gout. Yet, those who suffer from it do not themselves have common gout, nor is there in them any evidence of renal disorder. The gout is in their parents and this malady is the result of an inherited tendency. We could have, I think, no better proof that the tendency to deposit lithate of soda, although the most conspicuous event in the gouty state, is not its sole and essential feature.

This peculiar form of digital arthritis oecurs in conjunction with an equally peculiar form of chronic iritis. The subject of this case had lost one eye by persistent iritis, and the other was only saved by repeated iridectomies. I have described this form of iritis in some detail in a clinical lecture published in the 'Lancet' in 1873. I will not here repeat what may be there found, further than to say that the iritis in question is peculiar in being persistent, almost painless, destructive, and attended with vitreous opacities, and that it occurs to young persons who inherit gout. It is commoner than the articular disease, though by no means frequent. Mabey's case will be found given at some length with several others in the lecture referred to.

When Mabey's hands were at their worst there were soft nodose enlargements about the joints and over the sheaths of the tendons. I cut into one of these and removed a portion of a semi-transparent jelly-like structure for examination. It contained no urate of soda, but consisted of cell-elements, similar to those of granulation tissue.

I have seen two or three other cases more or less like Mabey's, but have preserved notes of only one. None of them were nearly so well marked as hers.

The case the nearest to Mabey's is that of a gentleman well known in the City, whose fingers at the present time present an almost precisely similar condition. In him, however, the disease is yet more strictly limited to the last joints, and there is no swelling of the hand nor much of the fingers. The ends of all are clubbed, and the last joint grates on movement. All the nails are diseased, being thickened, rough, and fibrous. This disease of the nails was present to a slighter extent in Mabey's case. The last joints of the toes are also affected, but in a degree much less than that of the fingers. Mr. B— is very tall, and, although robust looking, suffers much from feeble circulation and cold extremities. His finger-ends ache a good deal in cold weather. He has been under my observation for several years, and there is no material change in the state of the joints. They get worse rather than better. There is a strong history of true gout in Mr. B—'s family, and he is himself liable to pricking pains, probably of a gouty character. He has suffered from repeated attacks of iritis, and has had iridectomy performed in one eye.

Quite recently I have seen for the first time an old woman named White, nearly seventy years of age, in whom all the last joints of the fingers are disorganised. It is not senile rheumatism, for the disease has long been at a standstill, and she states that when a girl her fingers were inflamed. At present there is no swelling, but the terminal phalanges are twisted or flexed, some of them anchylosed, others very loose. No other joints are seriously affected, but she has of late been liable in mild degree to rheumatic pains. There is no clear history of gout, but she does not know much of her predecessors. She has not had iritis. Although by no means a close parallel with the other cases, it is yet a good example of last-joint disorganising arthritis, and it began in early life, and has got well as years advanced.

It may be suggested as probable that this condition occurs to those in whom an inheritance of gouty tendency to arthritis coexists with remarkable feebleness of circulation. If such an expression is permissible, it is a sort of articular chilblain modified by gout. The liability to it is greatest during the chilblain period of life, or rather somewhat later, since it waits for the development of the gout proclivity. It may be suitably contrasted with the malady known as symmetrical gangrene of the extremities. In the latter there is feeble circulation, with tendency to ischæmia of arteries and gangrene, but no arthritis. In these there is little or no ischæmia, and the arthritis is the main feature.

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Fig. I.

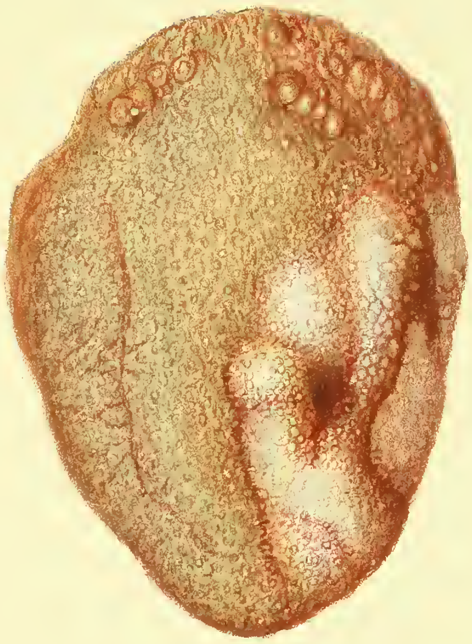

Fig II

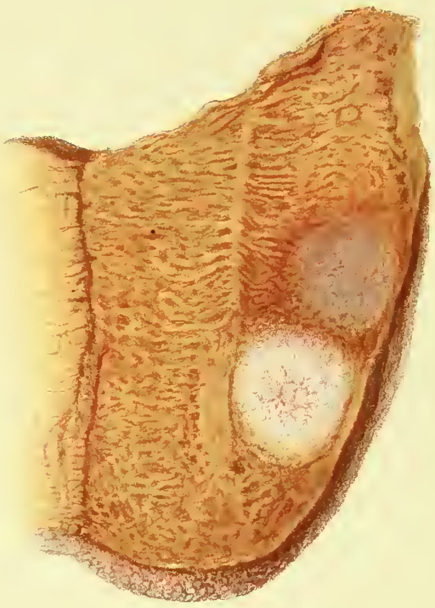

Fig. III

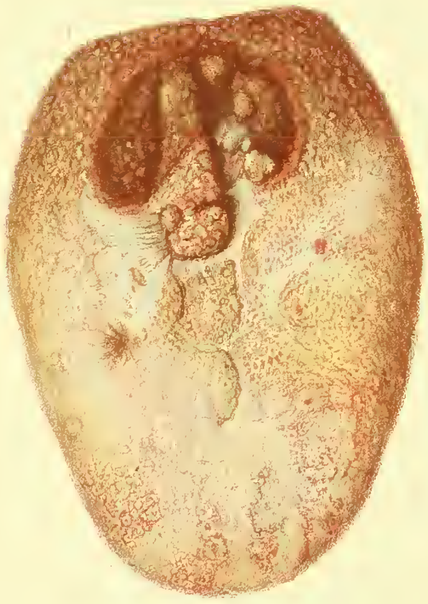

Fig. IV

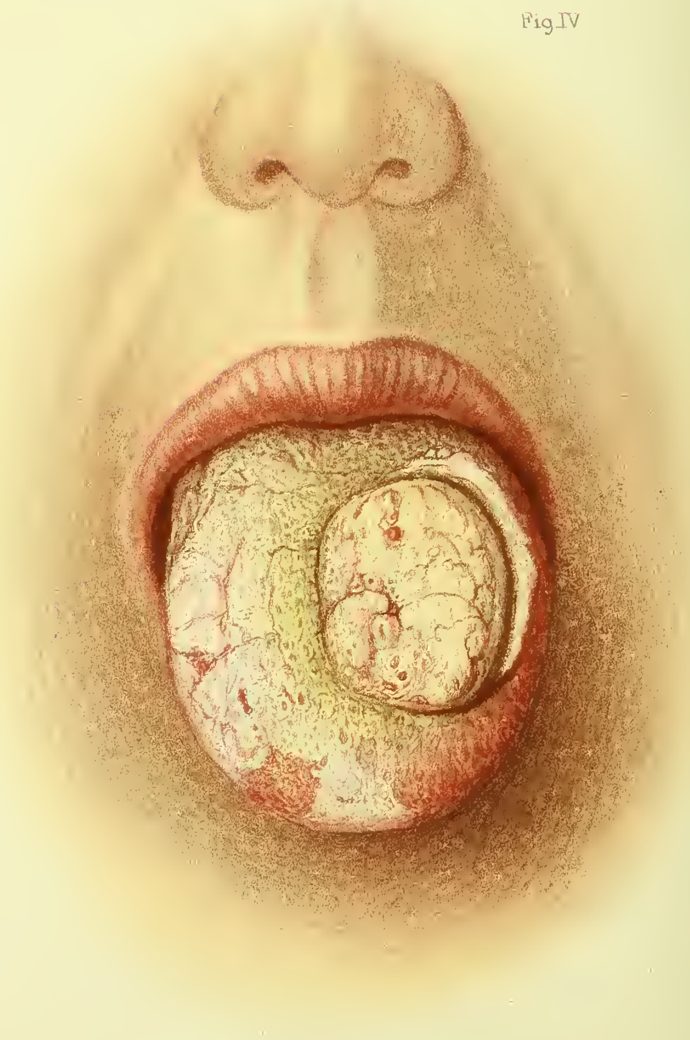

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PLATE LIII.

(*Four figures.*)

CANCER OF THE TONGUE AND SMOKERS' GLOSSITIS.

Fig. 1 shows the external appearances in a case of epithelial cancer of the tongue (after excision). The patient was aged 52, and the disease had developed in what was believed to be an old syphilitic ulcer.

Fig. 2 shows the same tongue after horizontal section through the growth below the level of the ulcer. These portraits are given as good illustrations of the usual appearances of cancer of the tongue. Microscopic examination showed the characteristic structure in great perfection. The tongue was excised in May, 1877, and the patient enjoyed good health for six months. The disease never returned in the stump, but only in the glands. Of the latter, a number in the floor of the mouth and in the neck enlarged almost simultaneously, and there was no suitable opportunity for their removal. After much suffering death occurred about six months after the commencement of gland disease, and a year after the excision of the tongue. The fact that the stump of the tongue always remained free from disease proves that the excision was sufficient, and indicates that had the operation been done earlier a permanent cure might have been expected.

Fig. 3. The tongue (after excision) of a man, aged 60, in whom cancerous ulceration was just commencing after long-standing but superficial inflammatory changes. The whole surface was bald and smooth, with diffuse white patches over most of the surface. In the middle of the dorsum, not much in front of the circumvallate papillæ, was a crescentic ulcer, in the hollow of which there was a warty indurated growth. In front of this growth, on the right side of the organ, there was a shallow fissure with hard edges, but without ulceration and without warts. The man had been a smoker, but denied syphilis. The ulceration had been present only two or three months, and there were no enlarged glands. I excised the

whole of the tongue (écraseur). The man recovered well, and is now in good health, three years after the operation (September 6th, 1877). The microscope showed the usual conditions of epithelial cancer in most parts of the indurated margins and warty growth. This case affords a good illustration of the advantage of prompt and radical measures in cancer of the tongue. Before the operation I was by no means certain that we should be able by the microscope to demonstrate cancerous elements. I felt sure, however, that if not actually cancerous it was about to become so. If the warty ulceration had been in one part only it might have been sufficient to freely destroy it by cauterisation. But it was beginning in several parts at once, and so far back that it was not easily accessible. Added to this the whole surface of the tongue was in a state of chronic disease, just ready to take on malignant growth (precancerous stage of cancer). The man had arrived at the most dangerous age, and looking at all the facts I felt sure that it was wisest to advise him to have the whole organ at once removed. If earlier operations were oftener resorted to I feel sure that the reputation of excision as a permanent cure for cancer of the tongue would be much advanced. I have at present four patients living and quite well at periods of three years or more after the operation, in whom the microscope left not the slightest doubt that the disease was cancer.

In the anterior two thirds of this portrait is well shown the conditions common in smokers' tongues. The papillæ are wasted, and the bald surface presents a thin ill-margined layer of opaque, thick, white structure.*

Fig. 4. The tongue of a man named John Heath, aged 62. The portrait was taken in May, 1876, and I lost sight of the patient afterwards, having advised excision, which was declined. He denied the history of syphilis, but had been a smoker. The tongue is bald and fissured and almost covered by diffuse leucomata, which in some parts are rather dense. On the left side is a large pedunculated growth, which occupies a hollow, the edges of which are thickened and densely leucomatous. This growth had been present only about six months. The other changes had been slowly advancing for many years. I had no opportunity for microscopic examination, but diagnosed the pedunculated growth as probably cancerous, and advised excision.

In this case, as in the preceding, I believe that the history of syphilis was truthfully denied. In both, probably smoking was the cause of the chronic glossitis. In Fig. 4 the leucomatous patches are much thicker than in Fig. 3, but the conditions are essentially the same, differing only in degree.

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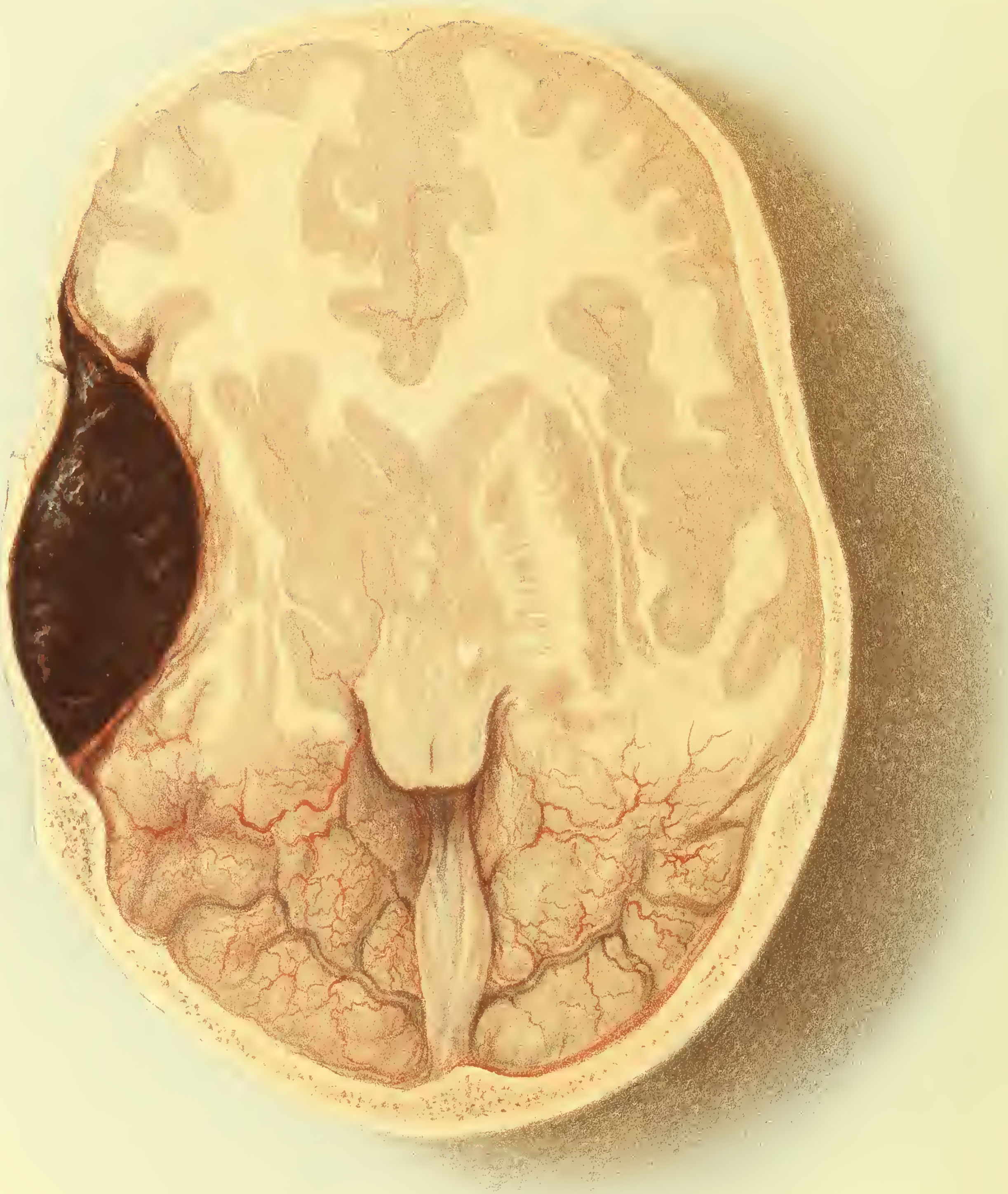
* For some excellent illustrations of this and allied conditions of the tongue see the collection of models formed by Dr. Alfred Fournier in the Museum of Hôpital St. Louis in Paris. M. Fournier, at p. 53 of his work, has given a good description of this condition.



BLOOD-CLOT BETWEEN DURA-MATER AND SKULL.

E. Burgess del. et lith.

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PLATE LIV.

BLOOD-CLOT BETWEEN DURA MATER AND BONE.

This portrait may be taken as a good typical illustration of the consequences of rupture of the middle meningeal artery. The skull-cap is turned over with the hemisphere still in position, and the section of a large blood-clot is seen on the right side separating the dura mater from the bone, and displacing the brain mass. There is a linear fracture of the bone near to the front edge of the clot. The section of the clot measures nearly three inches in length, and rather more than one inch in width. Excepting that it is displaced the brain itself is uninjured. In the cases of which this is a good example the clot usually occupies almost exactly the same position. It extends upwards and gradually thins off at about the middle of the parietal, and dips downwards into the middle fossa of the skull. In the latter position it is often large. The quantity of blood in cases in which death is caused is, I believe, often from four to five ounces. I have preserved in the Museum of the London Hospital several preparations which well demonstrate the exact position and size of the clot both in the upper and lower half of the skull. In the fourth volume of the 'London Hospital Reports' I have published some lectures on compression of the brain, in which several examples of this kind of injury will be found detailed. The case given at p. 44 may suitably stand for that from which the portrait was taken.*

The chief facts of the case are these :—A labourer was admitted with a laceration of scalp over the right parietal bone, caused by a fall into a ship's hold. He was quite conscious, and had no paralysis. Six hours later he was much worse, heavy and sullen, and his left limbs were decidedly weak. Suspecting hæmorrhage we decided to trephine if his symptoms increased. Instead of increasing, however, the partial hemiplegia passed off, as also the stupor. For several days following he was perfectly conscious, and free from all trace of paralysis. He died of erysipelas and pyæmia on the ninth day. So far as we could judge had these not supervened he would have recovered. I have omitted details, which were of great interest, but which do not concern this lesion. At the autopsy a linear fracture was found passing upwards through greater wing of sphenoid, squamous portion of temporal and anterior part of parietal. It crossed a groove for a large branch of the middle meningeal artery, which was lacerated. The clot was estimated at between two and three ounces, and was about an inch across. It did not extend much into the base of the skull. Without dwelling much on this individual case it may be convenient to mention some of the chief clinical facts as regards this group of cases :

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* I am not quite certain that my portrait belongs to this case, having lost the reference. The description given, however, exactly tallies with that shown in the portrait. If there is any difference the blood-clot is larger in the portrait than it was in the case referred to.

1. It would seem that it is not usual for a large hæmorrhage to occur at the time of the injury, for almost always there is an interval during which the patient is well before the symptoms of compression come on. The occurrence of this interval is, as is well known, the most valuable fact in aid of diagnosis.

2. It would seem probable that often hæmorrhage occurs in repeated attacks. The first may cause only temporary stupor and a slight degree of hemiplegia. These may pass off, and then suddenly, after some hours or even days, a sudden accession of fresh symptoms may denote a fresh hæmorrhage, and may prove rapidly fatal.

3. In cases where the bleeding is continuous death may occur very rapidly, and no time may be permitted for the performance of an operation. In these rapid cases the symptoms usually assigned to compression are absent, and failure of heart's action, with pallor, feeble respiration, and dilated pupils, are things which precede death.

4. In cases where a stage of coma occurs very important evidence may be obtained as to the side in which the clot is present by comparing the pupils. That on the side of the clot is often dilated, in consequence, perhaps, of stretching of the third nerve by the clot intruded in the sphenoidal fossa.

5. The occurrence or absence of hemiplegia is a very uncertain symptom. In the rapid cases it is never observed, because the patient rapidly becomes insensible, and in the more slow ones it is usually transitory, since the brain mass accommodates itself to the local intrusion. In the early periods there is probably always some weakness of the opposite limbs, but if such a condition is marked and persists it is much more probable that there is laceration than compression by blood.

These cases afford us the best examples of uncomplicated compression of the brain which we meet with, for the brain itself is frequently uninjured, and the concussion may be only slight. As such I have carefully studied them in the lectures referred to.

Fig. I.

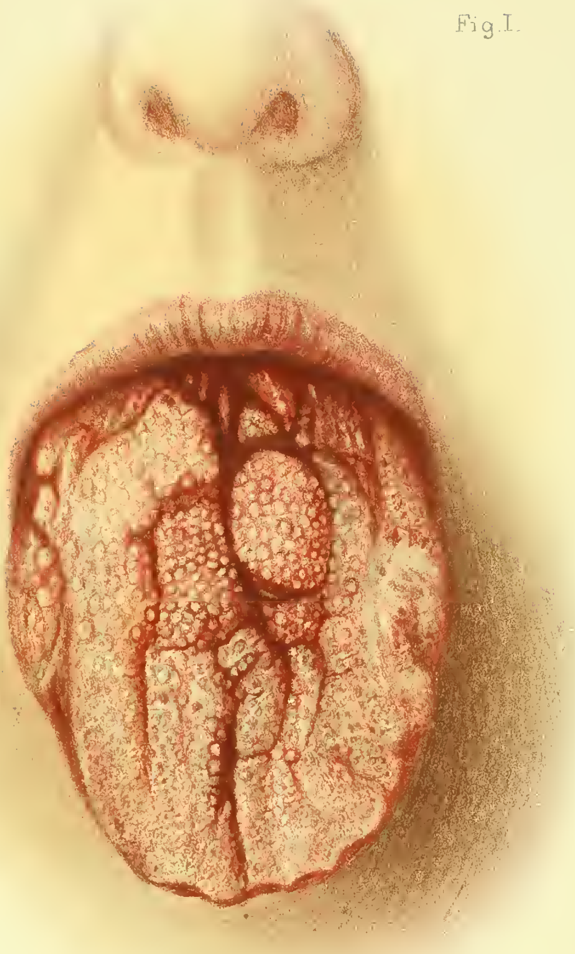


Fig. II.

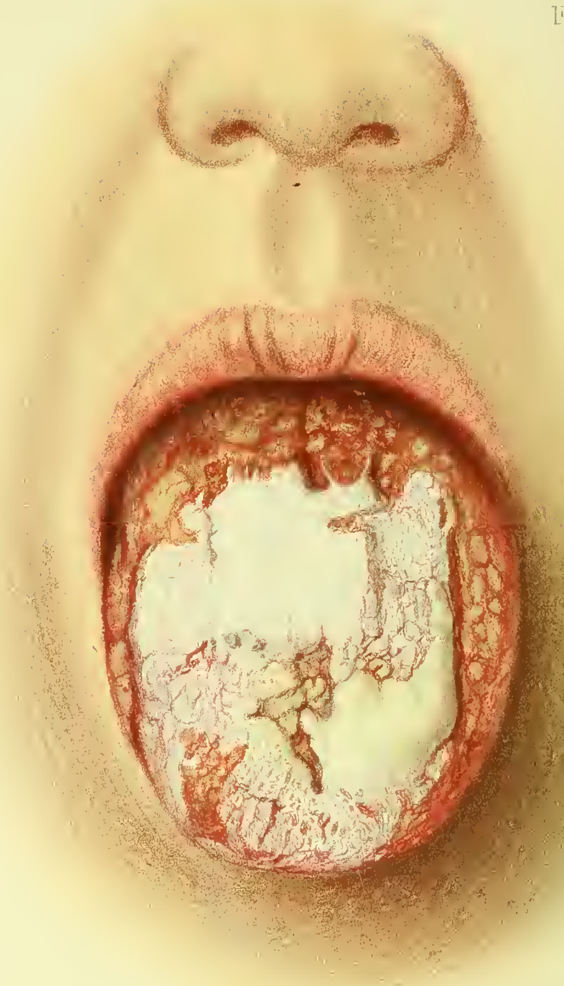


Fig. IV

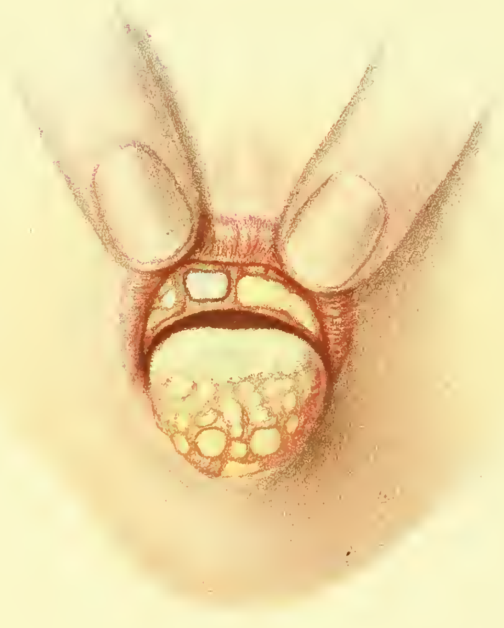


Fig. III

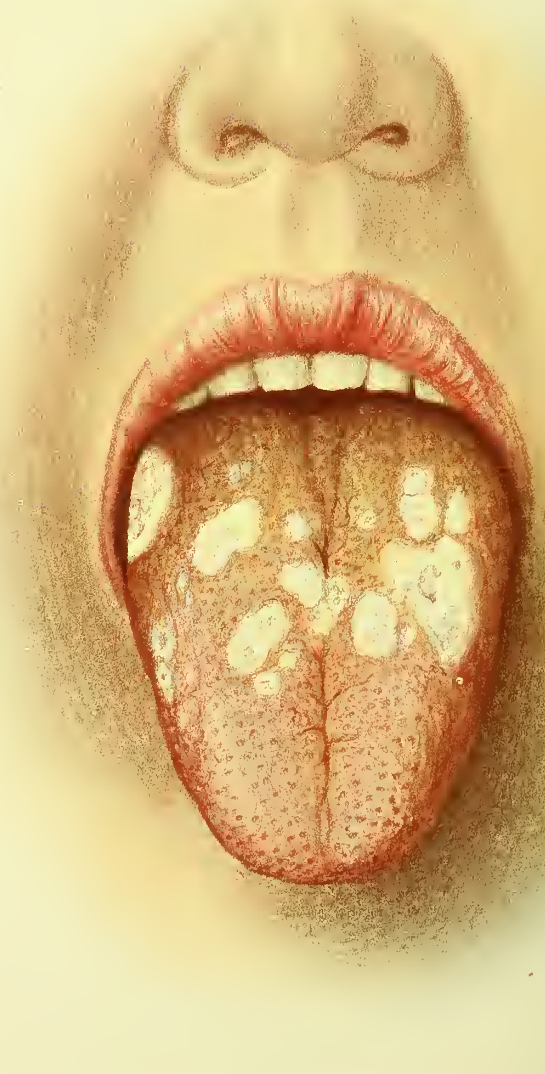
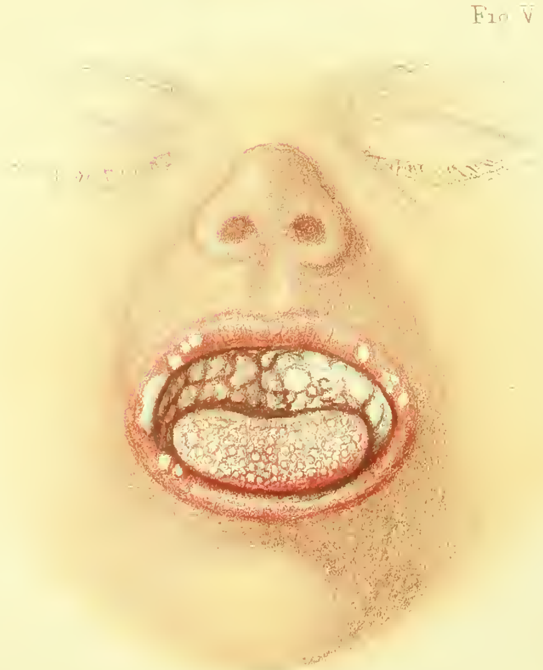


Fig. V



E. Burgess ch. lith

Wm. Newman & Co. imp

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PLATE LV.

MORBID CONDITIONS OF THE TONGUE.

Fig. I. *Long persisting syphilitic glossitis, with hypertrophy.*—This figure represents the state of the tongue of Mrs. Redcliffe, æt. 42, who had suffered from chronic syphilitic glossitis for more than twelve years. The tongue showed general hypertrophy, with deep sulci and masses of bossy induration overhanging them.

The history of primary syphilis was not obtainable, but Mrs. R— said that her husband had a tongue almost as bad as hers. They had been married seventeen years, and had out of five living births only one remaining child. She stated that she had never been in good health since her marriage. At first several miscarriages occurred, then a dead birth at full time, and then a child which had snuffles, sore mouth, and eruptions, and died at the age of two years. Since that four had been born alive, and of them one still survived. Mrs. R— was in the first instance sent to me by Mr. T. Loane in 1866. She obtained great benefit from specific treatment, but in 1875 came under the care of my colleague, Dr. Stephen Mackenzie, at the London Hospital for a lupus (syphilitic) eruption on the cheeks. This Dr. Mackenzie cured after much trouble by repeated cauterisations, combined with internal use of the iodide. The tongue, however, resisted treatment, and in 1878 Dr. Mackenzie was kind enough to send her back to me, when I had the portrait taken.

She had also leucomatous patches in the cheeks, extending from the angles of the mouth.

Fig. II. *Chronic sclerosis of mucous membrane from syphilis and smoking, with very dense leucomata.*—A portrait of the tongue of rdner, æt. 42, sketched at the London Hospital May, 1876. disease had existed for several years, and had followed syphilis. man was a smoker. He was in good health, and had but little inconvenience from his tongue. Almost the whole of the anterior two thirds of the surface of the organ was occupied by a very dense white structure which looked exactly like a thick layer of white

paint. It was abruptly margined at most parts, and very irregular in outline. At most parts it was smooth, and not in the least papillary, but the tongue at other places was bald and fissured.

The sketch does not in the least exaggerate the density or whiteness of the parts involved. I have seen one case in which the entire surface of the tongue was in a similar condition, but with that exception this portrait shows the most advanced state of leucomata of the tongue consequent on sclerosis which has come under my notice.

Fig. III. *Recent and transitory leucomatous eruption on the tongue.*—The tongue of Mr. H—, æt. 29. Sketched Nov. 24th, 1877. This portrait shows leucomata on the tongue of recent origin and not syphilitic. The patient, a healthy young man, believed that the condition had been caused by the frequent use of a patent ink eraser which required moistening in the mouth. He had no skin disease. The patches disappeared after a few weeks.

Leucomata of the kind shown in this portrait are to be carefully distinguished from those so commonly seen after sclerosis. In this form there is no destruction of papillæ, and perfect recovery of structure is possible. The patches are of the nature of an eruption on the tongue, and, although quite painless, are probably caused by slight inflammatory action. They are exactly like those which occur in certain rare forms of skin disease, lichen-psoriasis, pityriasis rubra, &c. Although, in this instance, the patient had no skin disease, yet it may be suspected that the same constitutional state was present, as in the cases when the two conditions co-exist. (Compare Fig. IV, in portrait LVI, which shows a similar condition with lichen-psoriasis. See also p. 5.) It is very important to recognise the fact that these patches have nothing to do either with syphilis or smoking. Whether, in this instance, the patient's conjecture was correct, that they were caused by Perry's ink erasure, may be much doubted.

Fig. IV. *Follicular stomatitis in a young child.*—I have no notes of this particular case, but the portrait was taken in order to show the state in the common form of follicular stomatitis. This disease is not uncommon in the children of the poor, and I used formerly to see many cases at the Metropolitan Free Hospital. It was in reference to them chiefly that I wrote recommending chlorate of potash as a specific ('Medical Times and Gazette,' August 16, 1856). The tongue and lining membrane of cheeks become covered with superficial ulcers, which are often white on their surface and sometimes pellicular. Sometimes these ulcers become almost phagendæmic and very offensive in smell, but usually the disease is a mild one. There is no cryptogam, and it is amazing how rapidly the stomatitis disappears under the use of chlorate of potash.

Fig. V. *Thrush in an infant.*—The patient was six months old, and appeared quite well. The palate, tongue, lips, &c., were covered with white patches. The disease had been present only one week, and under treatment by chlorate of potash it was very quickly well. Microscopic examination showed that the growth consisted almost wholly of cryptogam. A sketch was kept of the fungus.

Fig I.

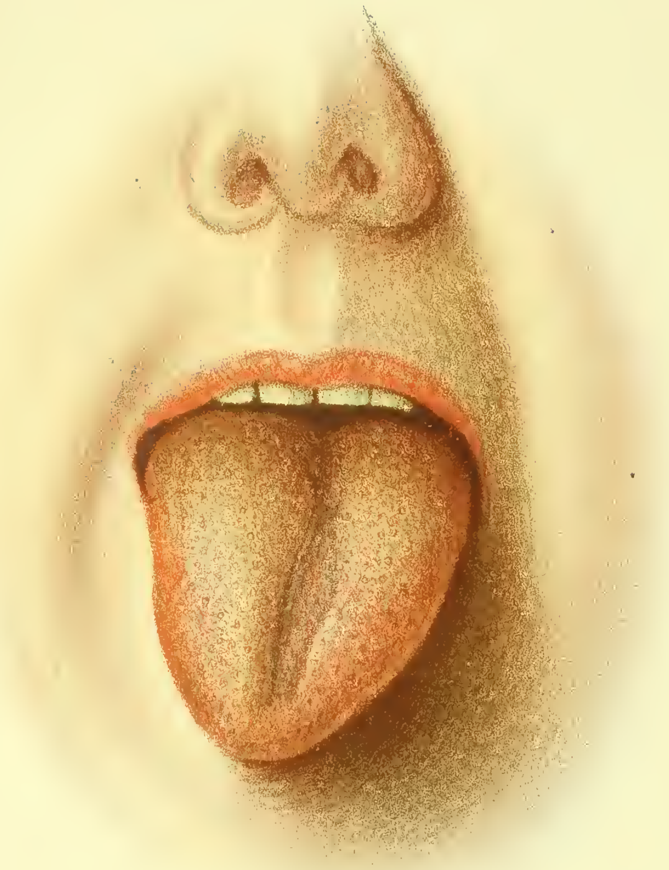


Fig. II.

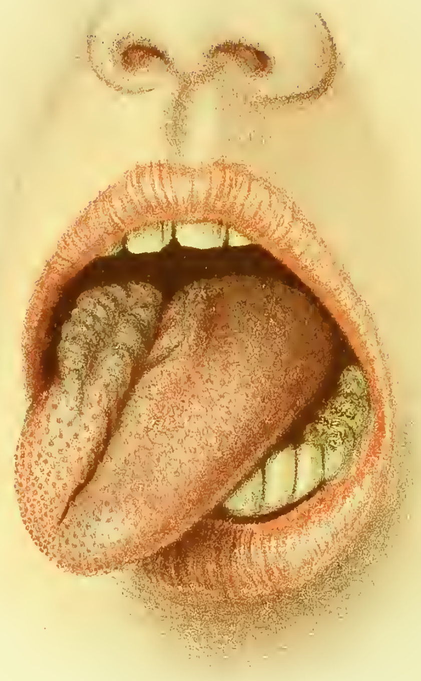
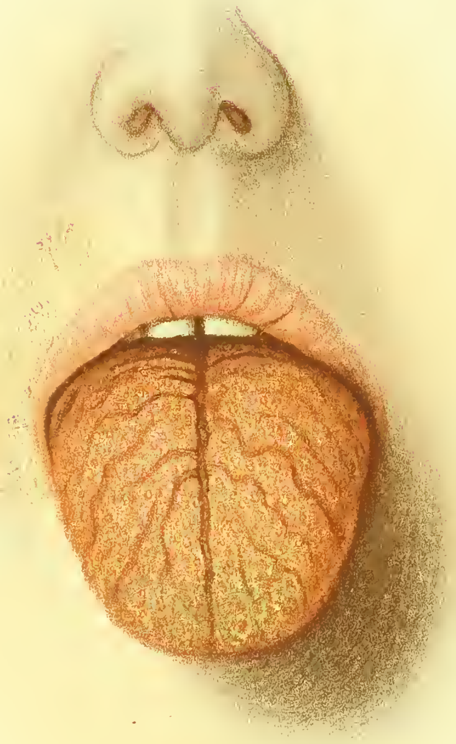


Fig. III.



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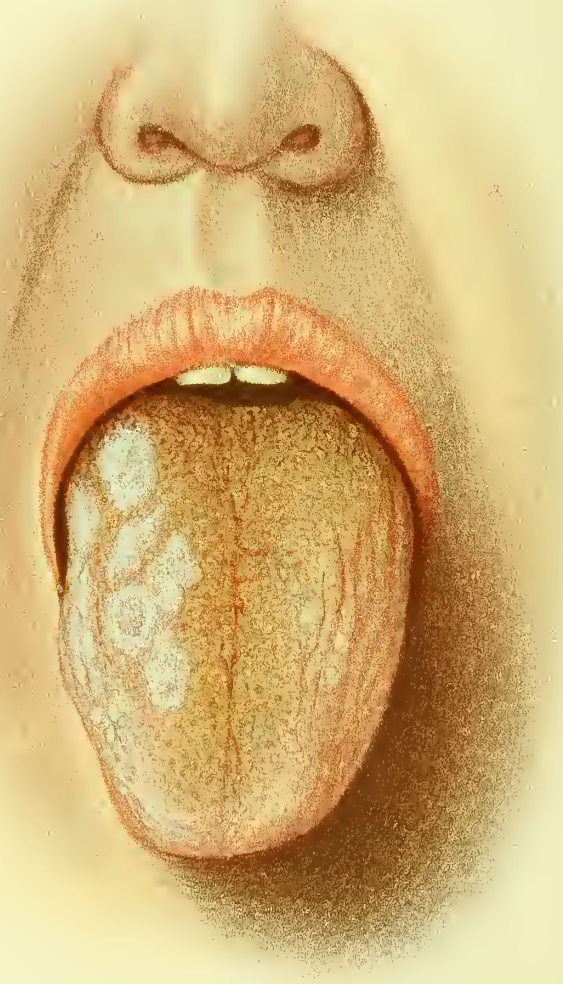

E. Burgess del ad nat et ch lith.

W. West & Co imp.

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PLATE LVI.

MORBID CONDITIONS OF THE TONGUE.

Figures I and II. *Paralysis of ninth nerve.*—These portraits show the state of the tongue after paralysis by complete division of the hypoglossal nerve. When this nerve is destroyed the tongue is, as well known, pushed over to the injured side by the unopposed muscles of the sound one. This symptom is usually definite if the organ be vigorously extruded, and it is present at all stages. The flabbiness and atrophy of the affected half of the tongue is not conspicuous at first, but develops slowly when the paralysis persists. It is due to wasting of the muscular substance of the organ. The two portraits both show the lateral deviation, and in Fig. I the atrophy is advanced, the tongue being in one half wasted and thrown into transverse folds. In this instance the nerve had been destroyed some years before by sloughing in the neck after scarlet fever. In the other case (Fig. II) the drawing was made within a week after the injury, a knife stab, which divided the nerve. No wasting is observable. That the muscular substance of the organ (although in the drawing it looks more prominent) was paralysed could, however, be made manifest at once if after taking each half between the finger and thumb of the two hands the patient was told to put it out. Immediately on the attempt to do so the uninjured half became hard between the fingers, whilst the other remained soft and flabby. In this case the lingual artery was in all probability divided at the same time. There had been profuse hæmorrhage, but it had been arrested by careful plugging with sponge before I saw the patient. I did not remove the plugs as the patient was very weak when I saw her. No bleeding recurred. The sponge was taken out about a week afterwards, and the wound healed. The paralysis of the tongue at the time she left the hospital remained as at first. I had no opportunity for watching the subsequent progress. It may be added that the corresponding half of the palate was not paralysed as it usually is when central disease causes wasting of one half of the tongue. The tongue, during forced extrusion, was directed much more to the right than the portrait shows.

Fig. III. *The fern-leaf pattern tongue.*—This figure (from a boy, Charles Steggle, æt. 9, who was the subject of chronic psoriasis-eczema) shows what I have sometimes called "the fern-leaf pattern," a central furrow or midrib with almost symmetrical lines branching from each side. These furrows have nothing to do with either ulceration or inflammatory swelling, but are caused by a slightly marked general hypertrophy of the papillæ, &c. They may be made more conspicuous by gently opening them by pressure with the finger. They usually persist, though not without some changes, through the whole of life. I have often observed them in association with skin diseases such as chronic eczema, and at one time I thought that they might be connected with the prolonged use of arsenic. I have seen, however, other cases, and not a few, where there was no such association, and where it was impossible to assign any plausible cause. One gentleman who had this fern-leaf pattern well marked told me that his mother had the same, and assured me that he could not connect it with indigestion or any other influence.

In the case from which this portrait was taken the state was associated with the transitory occurrence of slightly marked greyish-yellow patches near the tip. These are seen in the drawing. They were usually nearly circular, and varied much from day to day. They resemble and are probably indentical with the so-called ringworm of the tongue. They were not in the least sore. A patch of dry eczema is seen on the upper lip, and it is not improbable that the conditions just described on the tongue were caused by an inflammatory process of similar type.

The boy had been the subject of skin disease almost from infancy. At first it had been distinctly eczematous and confined to the head and face, but latterly it had taken the form of a psoriasis-eczema, in abruptly-margined dry patches, symmetrically arranged on trunk and limbs. It avoided the special psoriasis positions. Of this eruption he got quite well under treatment by tar baths and arsenic (Oct. 9th, 1873).

Fig. IV. *White patches on the tongue in connection with Lichen-Psoriasis.*—The case which furnished this portrait is given in full at page 212 of Vol. I of my Clinical Lectures. It is that of Mr. C—, æt. 44, who was the subject of lichen-psoriasis (lichen ruber). On the surface of the tongue were a number of white patches, slightly raised, smooth, and of a dull French white tint. Some were very small, mere dots, others larger and of irregular form. They were more numerous on the right than on the left side. Under the tongue at its sides were similar appearances, but here the white

papules appeared in streaks, cresting the folds of mucous membrane. In the pouch of each cheek were very numerous small white specks. These were probably glandular. They had caused no irritation, and he did not know of their presence. There was no sore throat. It is to be noted that in this case although the eruption on the tongue is not equal in severity on the two sides it is symmetrical in arrangement. The spots on the left side are comparatively little developed, but still they are present. This sketch is to be compared with Fig. 3 in the preceding plate, in which precisely similar conditions were present, but without skin disease. In Mr. C—'s case under the use of arsenic the patches on the tongue first coalesced and then, after about a month, entirely disappeared. At a much later period his skin eruption was also quite cured by the combined use of arsenic and tar. There was no history of syphilis, and the patient was throughout in good health.

Note on eruptions of the tongue in connection with skin diseases. —In the course of secondary syphilis it is, as every one knows, exceedingly common to have the mucous membrane of the mouth inflame coincidently with an eruption on the skin. It is in fact the rule rather than the exception. It is, however, very rare to find tongue eruptions associated with any of the non-syphilitic forms of skin diseases. In fact white patches on the tongue are in the eyes of many almost certainly indications of syphilis. There can, however, be no doubt that we do occasionally see patches on the tongue and cheeks in association with common psoriasis, lichen-psoriasis, and pityriasis rubra. The case which I have here figured is, I believe, the first in which they have been noticed in connection with lichen-psoriasis, but I have seen several others equally well marked both before and since. My late friend Dr. Sparks had previously described a similar condition which occurred under his observation in a case of pityriasis rubra. His case was a somewhat exceptional one. It is quoted at some length in my lecture. It is the only other observation on the subject with which I am acquainted. I have once or twice seen patches on the tongue in cases of common psoriasis, but they are very rare indeed, and seldom well marked. Thus it would appear that lichen-psoriasis is the eruption most frequently attended by tongue patches. In two or three cases I have seen an exactly similar eruption on the tongue without any skin disease, and these should in all probability be regarded as instances of a disease not fully developed. In all cases the spots disappear under treatment by arsenic, and when attended by skin disease sooner than the general eruption. The surface of the tongue is left perfectly sound, and so far as my limited observation goes there is no tendency to relapse. In this complete curability they differ from the white patches seen in the later stages of syphilis with which they might otherwise be confounded.

Fig. I.

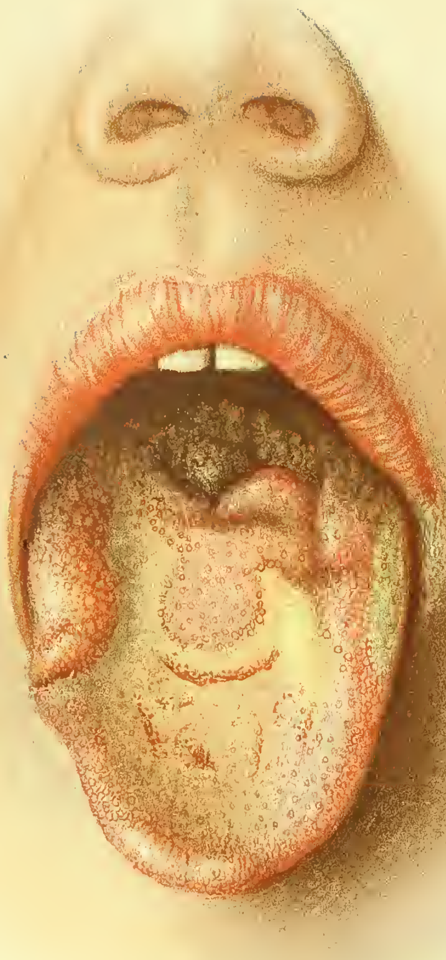


Fig. II.

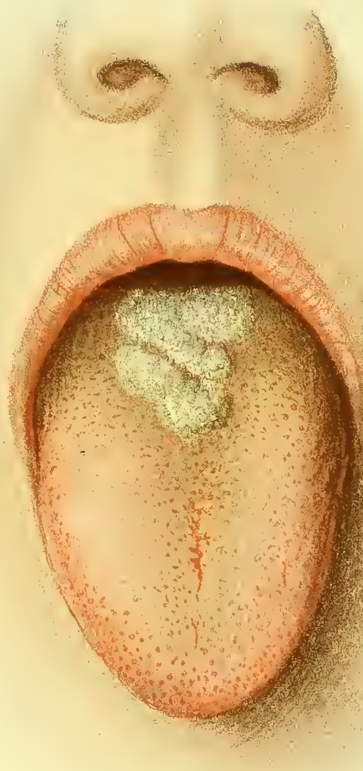


Fig. III.

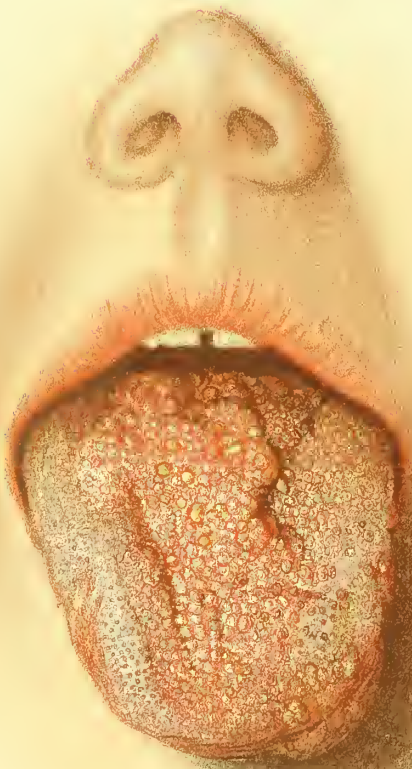


Fig. IV.

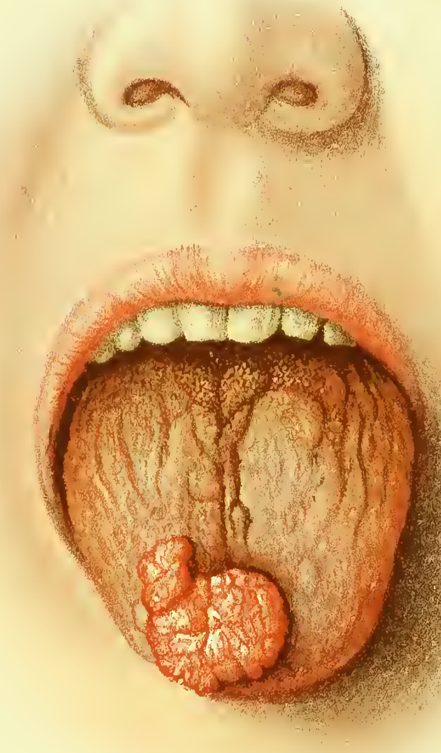
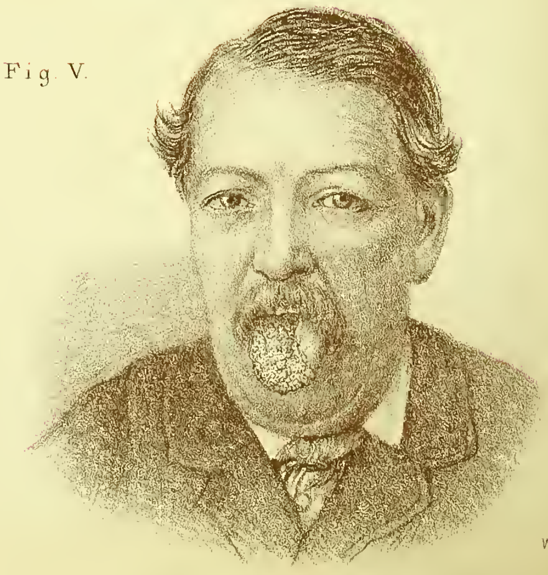


Fig. V.



Burgess del. ad nat. et ch lith.

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PLATE LVII.

MORBID CONDITIONS OF THE TONGUE.

FIG. I. *Syphilitic glossitis.*—This figure is from a case of syphilis in the secondary stage. This portrait shows well the state of severe general inflammation of the tongue such as we see not unfrequently in the secondary periods of syphilis. The whole organ is swollen, and its tumid edges are in several parts curved upwards. The papillæ are hypertrophied in parts, but glued together by the general swelling of intervening tissue, so as to constitute a condition resembling condyloma. On some parts the papillæ have almost wholly disappeared and a smooth red area is left. There are numerous abrasions, but nowhere any deep ulceration. The appearance of clefts is produced by the swelling of the papillæ, &c., in ridges. Compare with Fig. I in Plate LV, in which the glossitis had persisted many years.

Fig. II. *Syphilitic warts on the tongue.*—Papillary growths in the middle of the dorsum of the tongue from a case of secondary syphilis. It is not very infrequent in the early stages of syphilis, when mucous patches form in other parts of the mouth, for a patch of over-grown papillæ (mucous warts) to present themselves in the middle of the posterior part of the dorsum of the tongue. They are seldom seen in other regions, though now and then they may occur scattered over the whole surface. I possess another drawing showing them in exactly the same position as in this sketch. In that case the patient was a child who had received her syphilis from vaccination. They are a form of syphilitic warts, and of the same nature as condylomata. They always occur with skin-eruption and disappear under treatment. They are of interest as an example of over-growth of anatomical structures rather than of inflammatory effusion.

Fig. III. *Congenital hypertrophy of tongue.*—This portrait shows congenital conditions of the nature of a mole, but much resembling, at first sight, those of epithelial cancer. So close is the resemblance to the papillary form of malignant disease that I do not doubt that this diagnosis will be the first to suggest itself to most

of my surgical readers. The sketch is, however, an accurate representation of the state of things in a young lad in whom the condition had been present all his life. The tongue on the left side is greatly thickened, and covered on its dorsal surface with large papillary outgrowths. The hypertrophy crossed the middle line and implicated somewhat the right half. The papillary growths were most of them sessile, but some were more or less pedunculated. A few were vascular, and almost resembled the condition of nævus. The under surface of the tongue was somewhat similarly affected, and here a condition approaching to venous nævus was present.

It was not possible, however, to diminish the bulk by pressure. The lad asserted that his tongue had been in this condition as long as he could remember, and that it gave him no inconvenience whatever. It was, however, liable to temporary increase of size.

It seems probable that in this instance some congenital peculiarity in the structure of the organ existed, similar in nature to those to which in the case of the skin we apply the terms nævus and mole. Probably both the vascular and solid structures were implicated.

It is six years since this portrait was taken, and the lad is now a grown-up man engaged as a porter at Woking station. His tongue gives him but little trouble.

Fig. IV and V. *Cancer slowly supervening in a syphilitic tongue.*—In this portrait we have an example of pedunculated papillary growth on a tongue formerly affected by syphilitic sclerosis.

The coloured portrait shows the state of things when the patient first came under my care. The man had formerly had syphilis, and had been a smoker. His tongue was smooth and bald, with a large pedunculated outgrowth near its tip. I excised this growth by means of the actual cautery. He remained well for four or five years, but in 1874 he came under the care of Mr. Wagstaffe, at St. Thomas's Hospital, with his tongue in the state shown in Fig. V, which is copied from a photograph kindly given by Mr. Wagstaffe. His tongue was now excised, and the diagnosis of epithelial cancer (papillary form) was confirmed. I believe that the man died of a return of the disease about a year afterwards.

Fig. I.

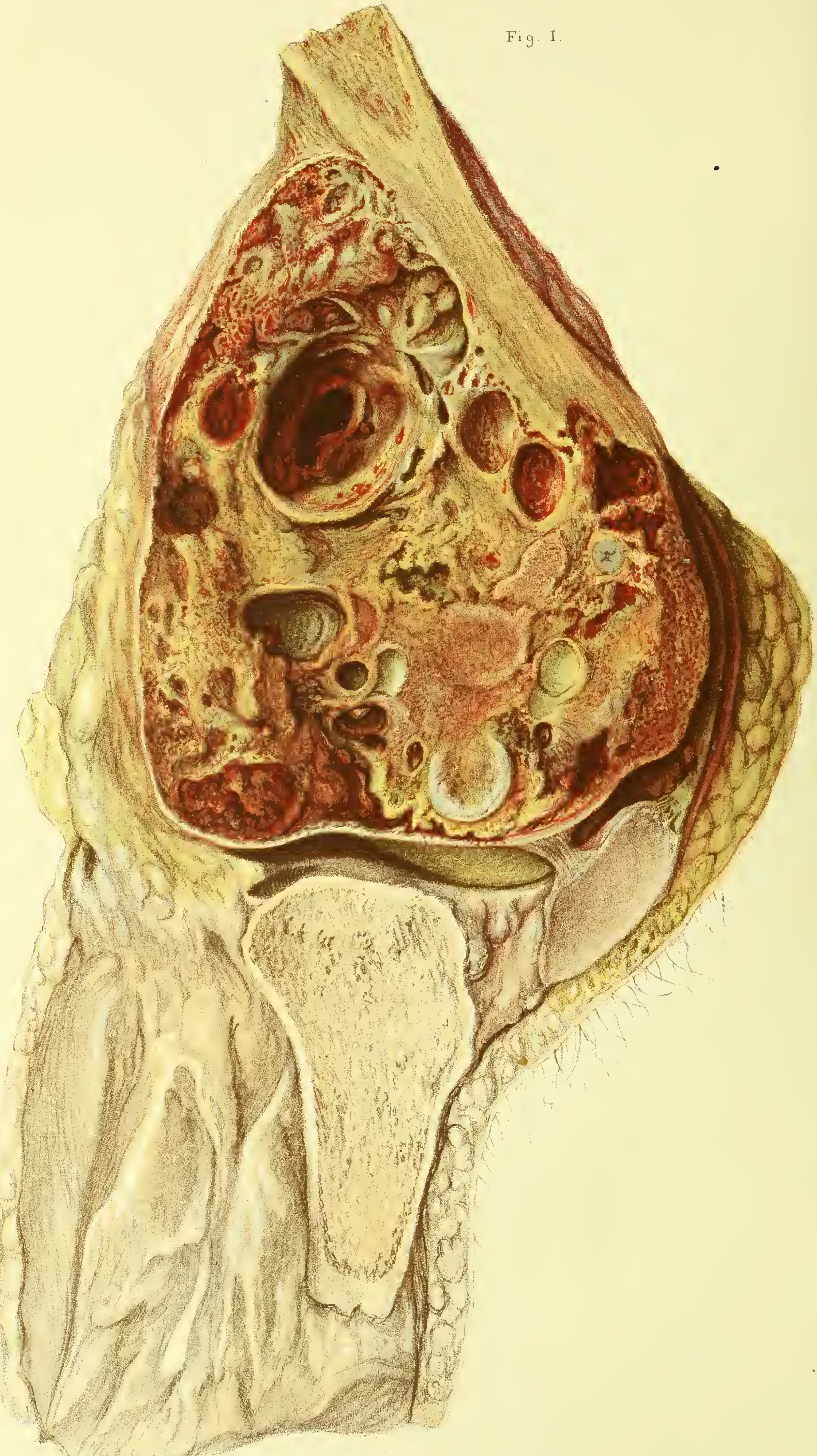


Fig. II.

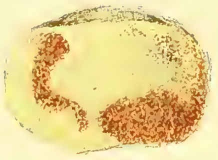


Fig. III.

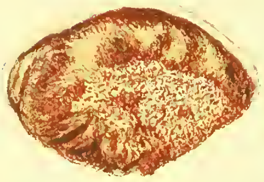


Fig. IV.

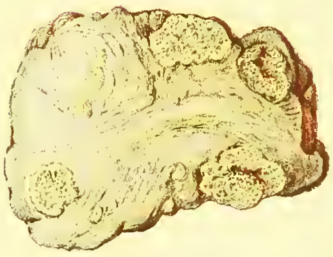


Fig. V.

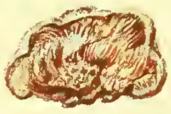


Fig. VI.

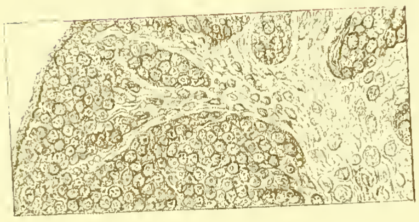
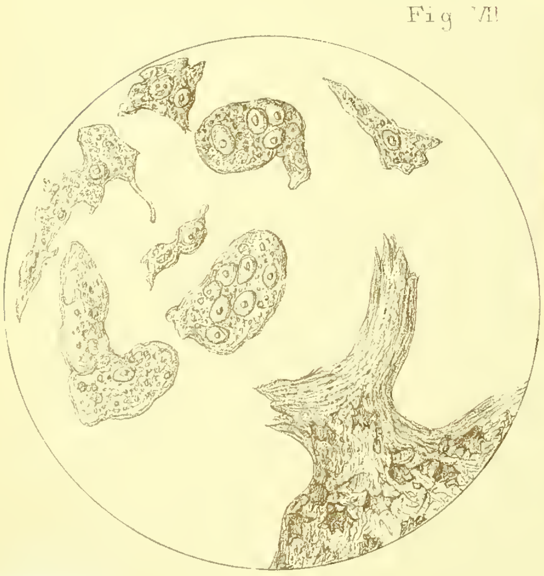


Fig. VII.



MYELOID TUMOURS.

ten West, del. E. Burgess chr. lith.

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PLATE LVIII.

MYELOID TUMOURS (GIANT-CELLED SARCOMATA).

The patient whose limb furnished the beautiful specimen delineated in Fig. I, was a young woman, æt. 23, under the care of my colleague, Mr. Borlase Childs, in the Metropolitan Free Hospital in February, 1856. Three years previously she had begun to experience weakness and aching in her right knee. Some months later enlargement above the knee was noticed, which increased somewhat irregularly. At times there had been much aching pain, especially when growth was more rapid than usual. There was reason to believe that it had not increased at all during the last eight months, as its size, nearly twenty inches, was by measurement exactly what had been recorded when an inmate of another hospital eight months previously. There was no history of cancer in the family, nor any enlarged glands or indications of internal disease. The contour of the limb indicated enlargement of the lower third of the femur and its condyles, there being no effusion into the joint nor any œdema of surrounding parts. Although in fair health her limb quite disabled her, and she readily accepted the advice to have it amputated. The limb was removed on December 10th, 1856. The portrait shows better than any description can do the condition and appearance of the growth in section. The bony structure of the condyles had been destroyed and was occupied by a fibro-cystic growth, which was still encapsuled by a thin layer of ossified periosteum. The section presented (1) large smooth-lined cysts which contained blood-stained fluid; (2) a white fibroid substance; (3) a soft pulpy growth, varying much in colour and consistence; (4) an opaque, buff-coloured granular material, soft and friable, and in parts almost mortar-like, and lastly, coagula. The specimen was exhibited at the Pathological Society in December, 1856, and was referred to a committee for further examination. A very full report as to its structure was prepared by Dr. Bristowe, and will be found appended to the case in the volume referred to. Dr. Bristowe reported that the tumour contained no bone, but was a soft growth embedded in a bony capsule. He believed that most of the cysts had taken their origin in extravasations of blood which had been absorbed. Essentially the tumour was a myeloid growth, beginning in the interior of the bone. Dr. Bristowe writes:—"The sequence of events, according to the view I take, was the following:—1. The growth of myeloid tissue in the interior of the bone. 2. The expansion and absorption of the bone. 3. An abortive attempt at the development of new bone in the interior of the growth resulting in the formation of fibroid tissue. 4. The degeneration of certain parts. 5. The formation of cysts." I must refer those who desire more detail to the report itself.

Mr. Butlin, in his able work on 'Sarcoma and Carcinoma,' remarks upon the freedom from malignant tendencies of central sarcomas of the femur, and adds that is perhaps more certain of the giant-celled than of the other varieties. My own experience is quite in accord with his. These tumours grow slowly, do not, as a rule, affect the general health or produce gland disease, and after amputation the patient remains well. Such were the facts in the present case. The patient certainly lived some years without recurrence, and for anything that I know may be alive still.

That there is something in the structure of the lower part of the femur which gives proclivity to this special form of cystic myeloid may be held probable. I possess another drawing which, excepting that the growth is yet larger, is almost a fac-simile of the one which I now publish. The shaft of the femur bears the same relation to the tumour, and the latter is enclosed in a bony capsule in exactly the same manner. The section of the tumour shows just the same features with the addition that in some of the fibrous masses ossific growth has occurred. The patient was a man, aged about 30, in whom the tumour had been growing for four or five years. He had been quite laid up by it, and was emaciated in consequence of the pain and irritation caused. Spontaneous fracture had occurred, and some glands in the groin were enlarged. In spite of these rather unhopeful features he recovered well after amputation high up in the thigh, the glands subsided, and he regained his health. I believe that he is still quite well.

My experience of the myeloid epulis is also very favorable. I have never excised large portions of the alveolus, but have been content either with curved forceps or strong scissors to cut away as much of the base of the tumour as I could. I have always used the cautery freely afterwards, and sometimes repeated it before the wound healed. The result has been that I have very rarely indeed witnessed any recurrence. In several cases in which the patients remained for years under notice I am sure that no recurrence took place.

Fig. II. The section of a lymphatic gland from the popliteal space from a case in which Mr. Curling had amputated through the thigh for a myeloid growth from the tibia. The peculiar tints of the gland growth are very striking and closely resembled those of the parent tumour, but I regret that I have not preserved any record of microscopic examination.

Fig. III. The section of a large epulis of myeloid structure excised July, 1864, from the lower jaw of a young and healthy-looking man. It was ossifying in its centre, but fleshy on its surface. I believe there was no recurrence.

Fig. IV. The section of a very large epulis of slow growth and chiefly of fibrous structure. In several parts there were islands of ossification. The tumour shows none of the variations in colour which are common in the myeloid form. So far as I know there was no recurrence after removal.

Fig. V shows the section of a small myeloid epulis which I excised from the upper jaw of a young woman in February, 1870. It had grown from the gum at a spot where two teeth had been removed. It was smoothly rounded on its surface, but ulcerated at two or three spots. Its base was very broad, adhering all round to the gum and alveolus. It had a dusky surface, and had been growing for six or eight months. It was cut away with strong curved scissors, and the actual cautery was freely applied to its base. The portion shown in the sketch is about a third of the whole growth. The section showed a reddish-brown fleshy structure, in which were scattered nodules of cancellous bone. Large myeloid cells were found in great abundance, some containing many more nuclei than any which have been shown in the microscopic sketch. See Figs. VI and VII.

Fig. VI is a diagram slightly magnified to show the general arrangement of parts.

Fig. VII, from the microscope × 350, shows in the upper part of field detached cells of various shapes and of large size, and containing many nuclei. Below and to right is a section of an ossifying nodule. All the sketches were done by Mr. Tuffen West.

Note on the enlargement of glands in myeloid tumours.—In a case of myeloid epulis of the lower jaw recorded in Vol. VIII of the Pathological Society's 'Transactions,' I have noted that a gland enlarged under the jaw, but that it subsequently subsided. In another case in which I amputated through the thigh for a large myeloid growth in the condyles of the femur there were at the time several large glands in the groin which caused much anxiety. They were firm, loose, and movable. I did not take them away at the time of the amputation, but intended to do so afterwards. They rapidly, however, diminished, and after a few months could scarcely be found. The patient, after an interval of three years, remains, I believe, quite well. I do not recollect to have ever seen the glandular growths in well-marked myeloid disease prove troublesome. It is very exceptional for the glands to enlarge at all, and when they do so it is only to a moderate extent, and with apparently a good possibility of spontaneous retrocession.

Fig. I

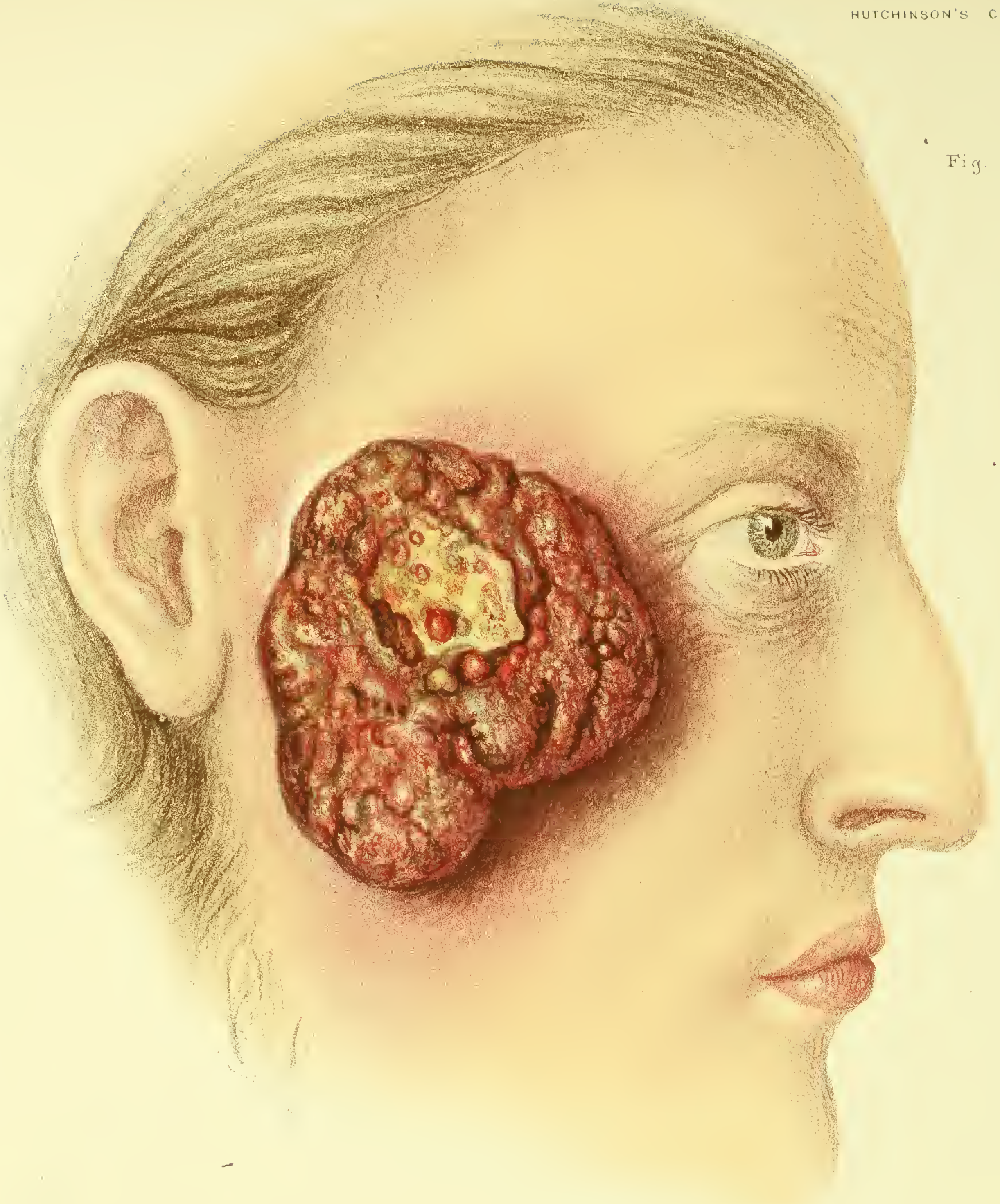


Fig. II

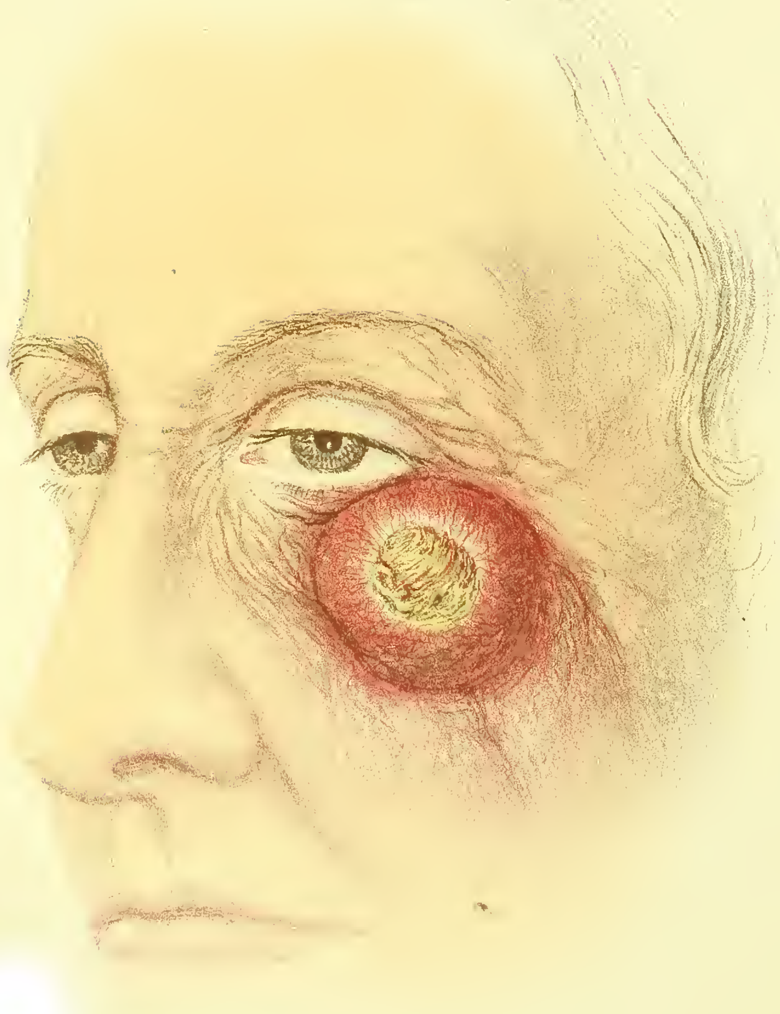
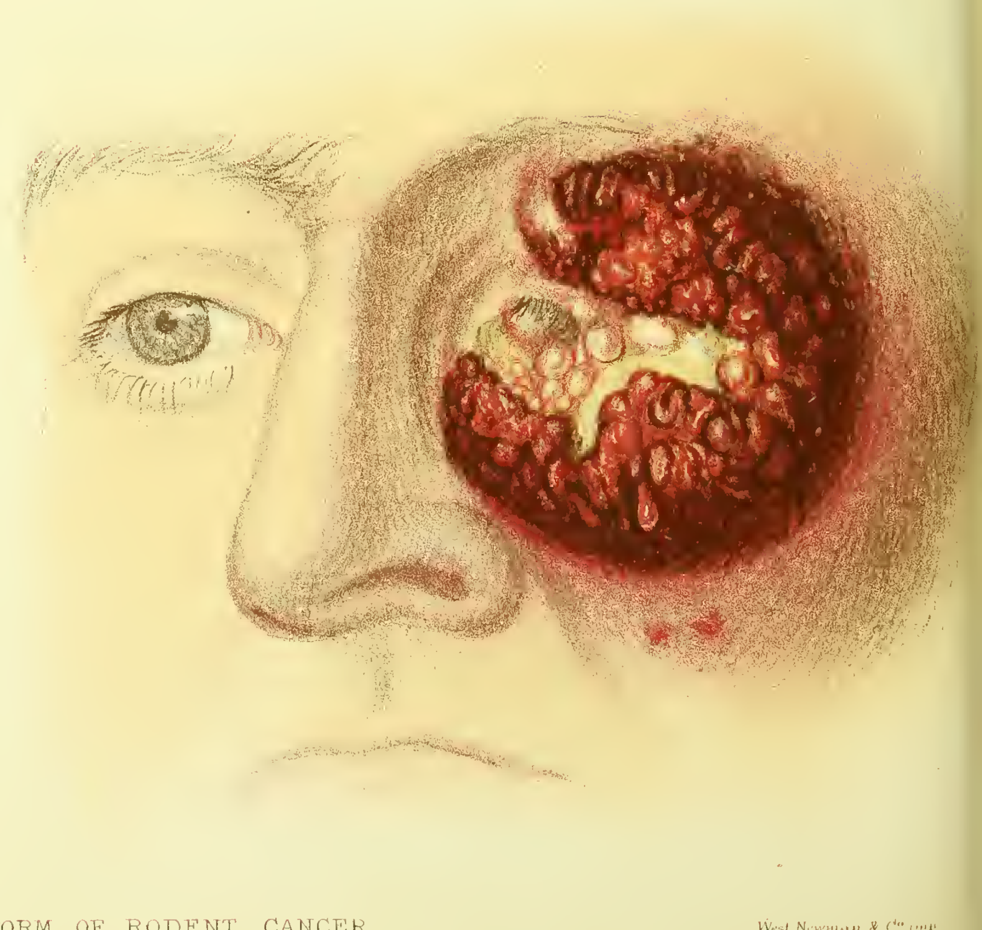


Fig. III



THE FUNGATING FORM OF RODENT CANCER.

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LEEDS & WEST-RIDING
MEDICO-CHIRURGICAL SOCIETY

PLATE LIX.

THE FUNGATING FORM OF RODENT CANCER.

Fig. I is the portrait of a gentleman from Scotland whom I treated for a fungating malignant growth on the cheek about fifteen years ago. It was only of a few months' duration, and had attained, as shown in the sketch, a large size. He had already, under the advice of a surgeon in Edinburgh, had chloride of zinc applied, but without any good result. I treated it with the strongest chloride of zinc paste, applied over the whole surface, and on the fourth day made deep incisions into the slough, and introduced pieces of worsted covered with the paste to the bottom of them. In this way a thick eschar which laid bare the malar bone was obtained.

The fungus sprouted again very quickly at the lowest part of the wound, but another application of the paste effected apparently a complete removal, and a sound cicatrix resulted. Mr. F— came up from Scotland a year later, being suspicious of recurrence, but the sore on this occasion was only a small hard-edged ulcer, not bigger than a sixpence. It was again destroyed by means of the paste, and I know that the scar remained sound for several years afterwards. Indeed, so far as I am aware, the patient is still living and free from disease, but it is some years since I heard anything from him.

He was, at the time that the disease commenced, about forty years of age. It is of interest to note that he had an enlarged gland under the jaw, on the same side, which had been present, he assured me, for many years, and long before the growth began on the cheek.

I did not excise this gland and it remained, as long as the patient was under my observation, without either diminution or growth. No microscopic examination was ever made in this case, and it must therefore be held perhaps a little doubtful whether the disease should rank as rodent. Taken in connection with the other cases shown in this plate, I have little doubt that it was at any rate an example of epithelial cancer, and although its growth was so considerable, it is to be noted that it did not cause disease of the lymphatics.

I do not know that I ever saw a precisely similar case.

Fig. II is the portrait of an old man upon whose cheek had developed a very peculiar form of epithelioma.

I have now seen four or five examples of this kind of growth, all exactly alike, and I possess other portraits.

Instead of the thin low indurated edge of the common form of rodent, we have a thick, firm, rounded mass, in the middle of which, by ulceration, a sort of crater is formed. Unlike what occurs in rodent, the growth is rapid. In the present instance the sore had attained its dimensions in a few months. In several cases microscopical examination of growths of this kind was made for me, with the report that they show the characters of epithelial cancer. Whether they are prone to cause gland disease or not I do not know, but I have never yet seen in connection with them any gland enlargement which was certainly malignant. If freely excised there appears to be good hope that no return will take place.

In one case I excised the left upper eyelid of an elderly woman for a growth exactly like that shown in this portrait; a flap of skin was transplanted from the forehead to make a new lid; the parts healed well, and no recurrence on that side ever took place, nor was there any gland-disease. Two years later, however, the poor woman came under care for a precisely similar growth in the opposite eyelid, and on this occasion I did not succeed in preventing local recurrence. I lost sight of the patient a few months after the operation, but there was already some threatening of enlargement of glands. As an example of the symmetrical production of this peculiar form of local cancer the case is probably unique. It is most likely that the two growths were quite independent of each other and in connection with a constitutional cause.

Fig. III is an important illustration of what was, without any doubt, a fungating form of rodent.

As a rule, as is well known, the rodent ulcer does not fungate; in other words, does not develope any large sprouting masses of granulation. Every now and then, however, we see it take on this exceptional character. In this case the patient was a man between sixty and seventy, in whom the disease had been present several years. Some parts of the edge of the ulcer were characteristic of the "rodent," smooth, hard and sinuous. But from a large part of its surface bossy masses of granulation had sprung. These are well shown in the portrait. There was no gland disease. By repeated operations, partly with the knife and in part by the actual cautery, the condition of things was very much improved, but the cure was not complete, and the tendency to sprout again, if the treatment was neglected, still persisted.

Fig. I.

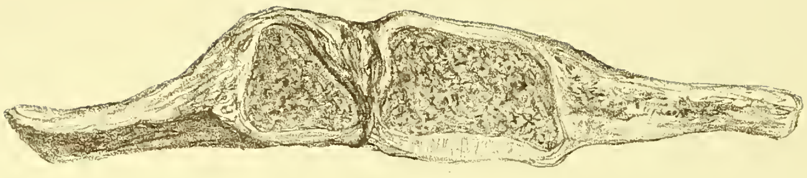


Fig. II.

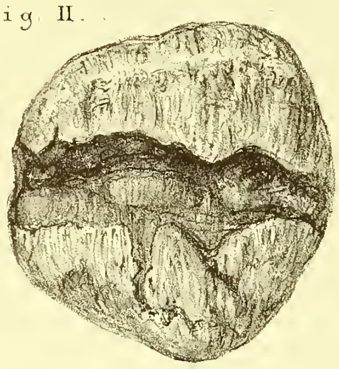


Fig. III.

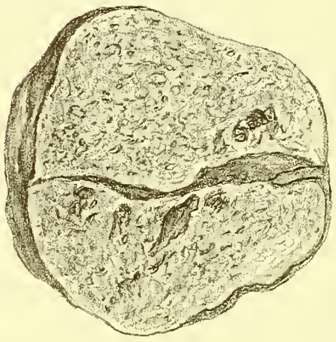


Fig. IV.

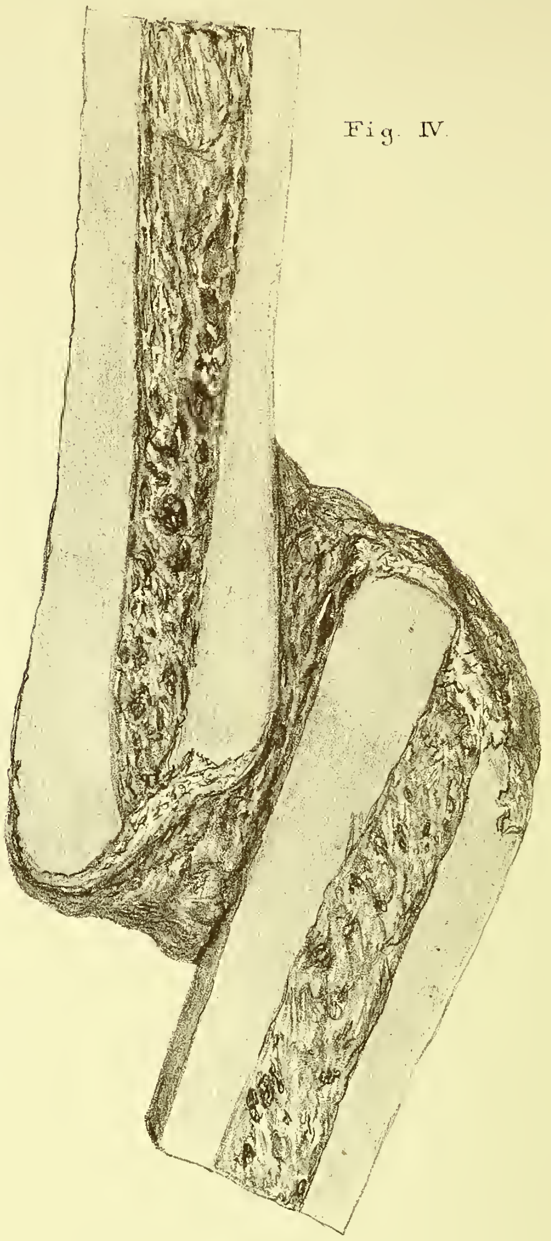


Fig. V.

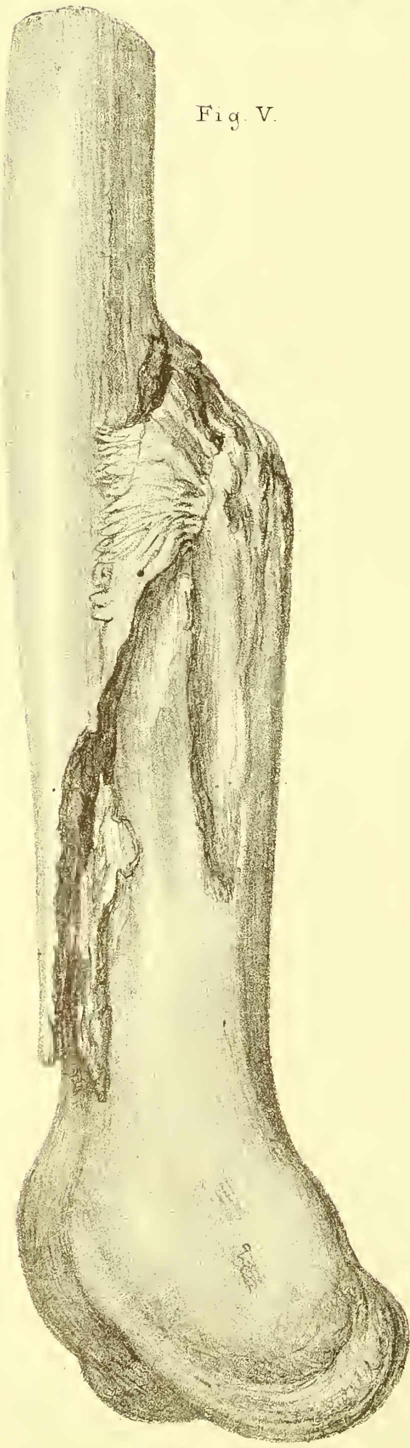


Fig. VI.

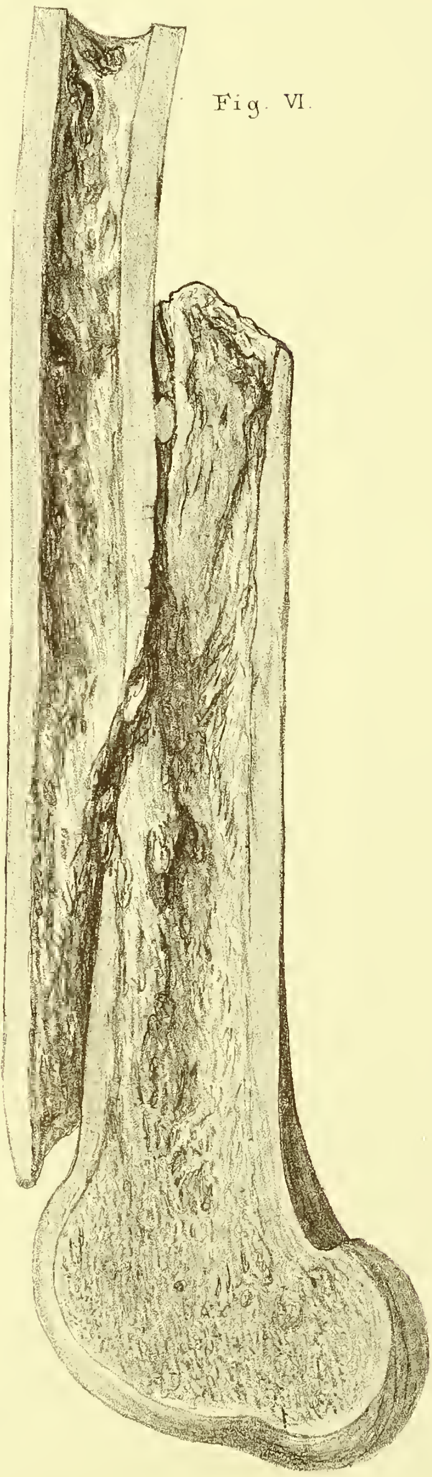
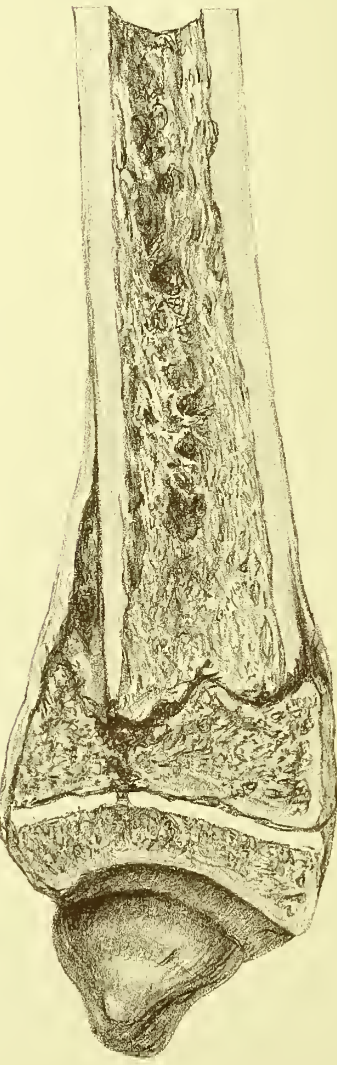


Fig. VII.



E. Burgess lith

West, Newman & Co. imp.

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PLATE LX.

VARIOUS EXAMPLES OF FRACTURE.

Fig. I shows the vertical section of a patella with close union after a transverse fracture. On the articular surface of the bone the fragments touch, and some bony spiculæ cross, but the osseous union is not firm, and on the outer surface a considerable gap exists, which is occupied by firm fibrous tissue. The bone moved in one piece, and for practical purposes it may be considered as an example of ossific union.

Figs. II and III show the condition of a patella in which ossific union has occurred after transverse fracture. The specimen is in the museum of the London Hospital, but no history is appended. In this as in the preceding figure there is a wedge-like gap in the anterior surface of the bone. On the articular aspect, however, the fragments are close, and bone spiculæ freely cross. The line of fracture, however, remains everywhere quite visible.

Fig. III is a vertical section of the same bone.

Fig. IV. I have given this sketch in order to show the condition of overlapping which is sometimes present in unreduced fractures through the shaft of the femur. The bones overlap for an inch and a half, but are firmly welded together by new material between them. The condition shown well illustrates the extreme importance of effecting a complete reduction when the limb is first adjusted. Had the fragments ever been brought really end to end they would, since the fracture is almost transverse, have locked.

Fig. 5 is a good example of an oblique fracture in the lower third of the femur as contrasted with a transverse one. In this instance, as in the preceding one, a complete reduction has never been effected. The sharp lower end of the upper fragment projects over the condyles.

In Fig. 6 the section of the same bone is shown. The paramount importance of extension is enforced by this specimen.

Fig. 7 shows an almost transverse fracture through the tibia a little above the ankle-joint, in a young subject. It is a good example of an intra-periosteal fracture, for the periosteum which adheres to the lower fragments is detached for a considerable distance from the lowest part of the upper one. The fracture is within three quarters of an inch of the epiphysal line, and there is a vertical fissure through the lower fragment, which ends, however, at the epiphysal cartilage, and does not pass into the joint.

Nothing is known as to the nature of the accident which caused this injury. It may be conjectured to have been a combination of direct and indirect violence. It is of interest to note that the bone has not yielded as is usual at such ages at the epiphysal line itself. The manner in which the fragments are locked together is worthy of special attention. It well illustrates the comparative uselessness of splints in fractures near to joints where a large thickness of cancellous tissue is involved. In such positions the fragments almost always become impacted, or, at any rate, so locked together that there is no risk of subsequent displacement, and all that is needed is that the parts should be protected and kept at rest.

All the figures in this plate have been taken from specimens in the London Hospital Museum.

Fig. I.

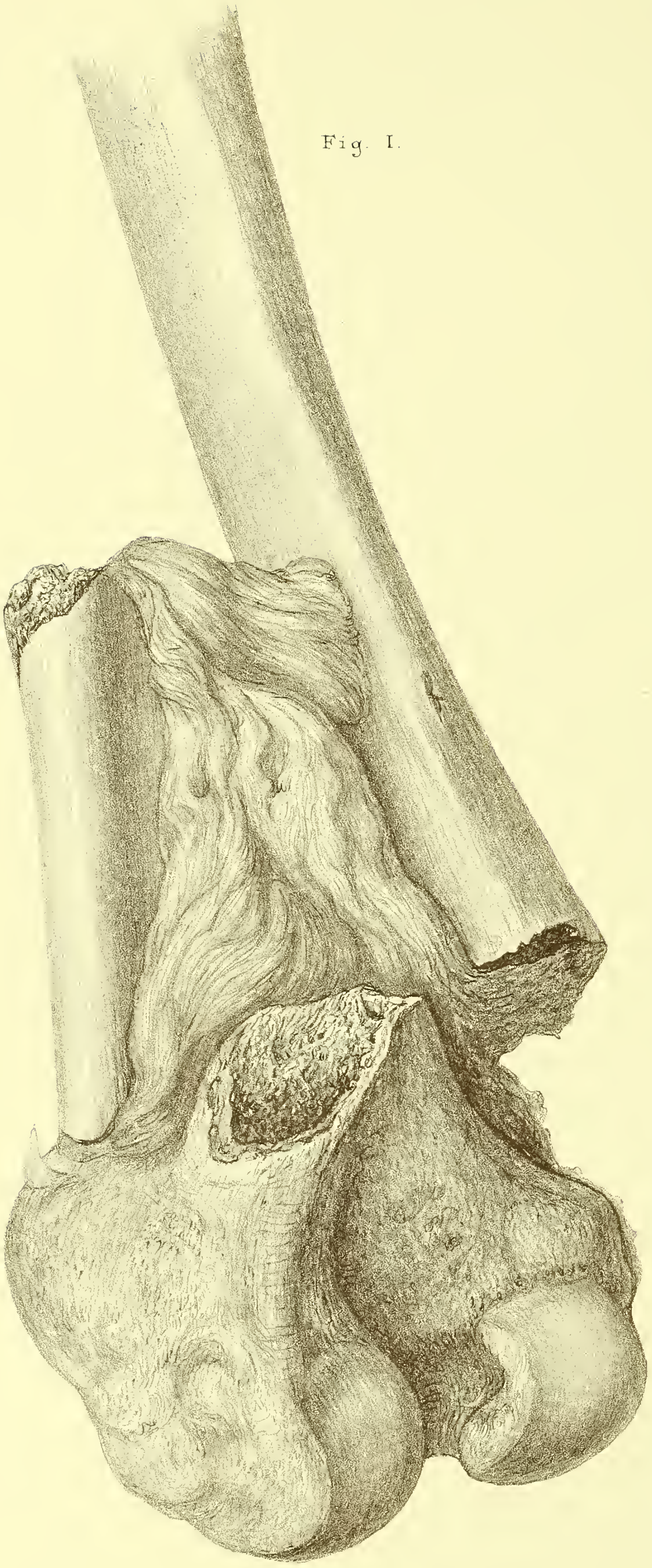
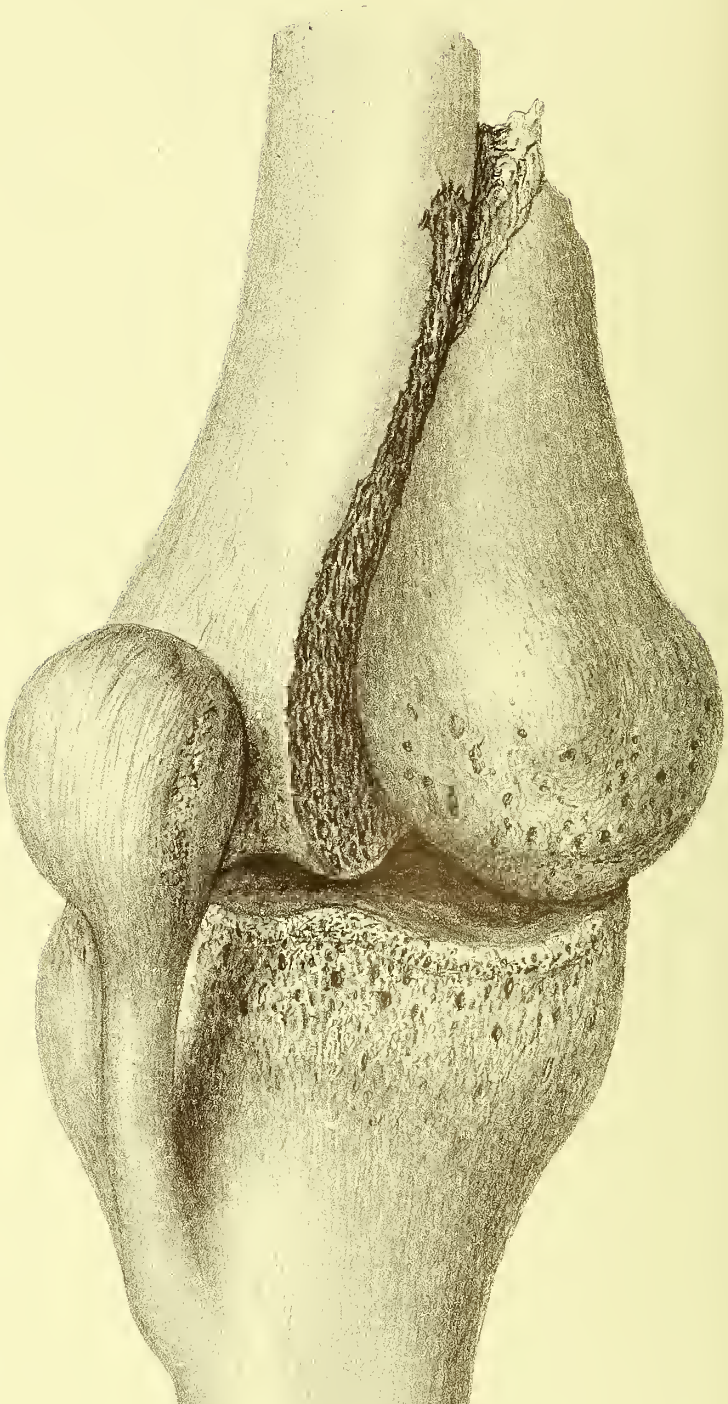


Fig. II.



E. Burgess lith.

West Newman & C^o imp

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PLATE LXI.

FRACTURES OF THE LOWER PART OF THE FEMUR.

Fig. I shows an almost transverse fracture through the shaft of the femur, just above the condyles. From the upper fragment a portion of bone three inches long has been broken, and is displaced in front of the other two. The shortening is great, the lower end of the upper fragment being carried backwards and downwards. The fracture was probably the result of direct violence.

Fig. II, copied from a specimen in the Musée Dupuytren of Paris, well illustrates a not uncommon form of fracture in which a vertical split between the condyles has completely detached the inner one. History not known.

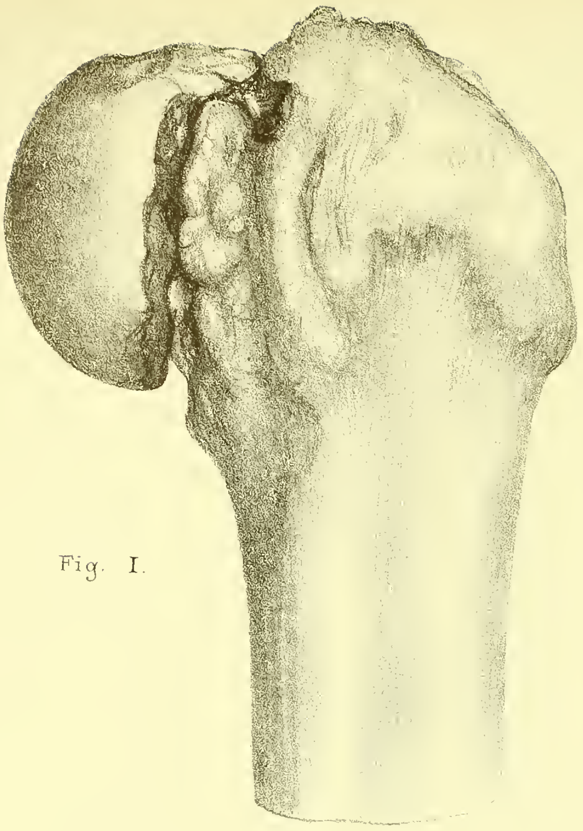

Fig. I.

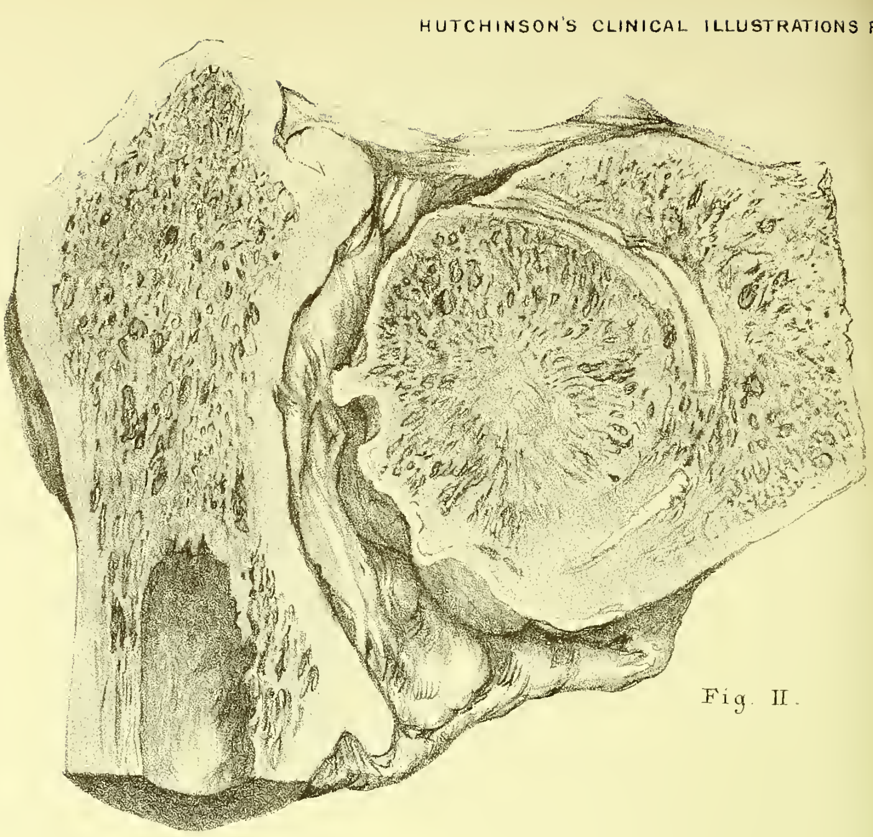

Fig. II.

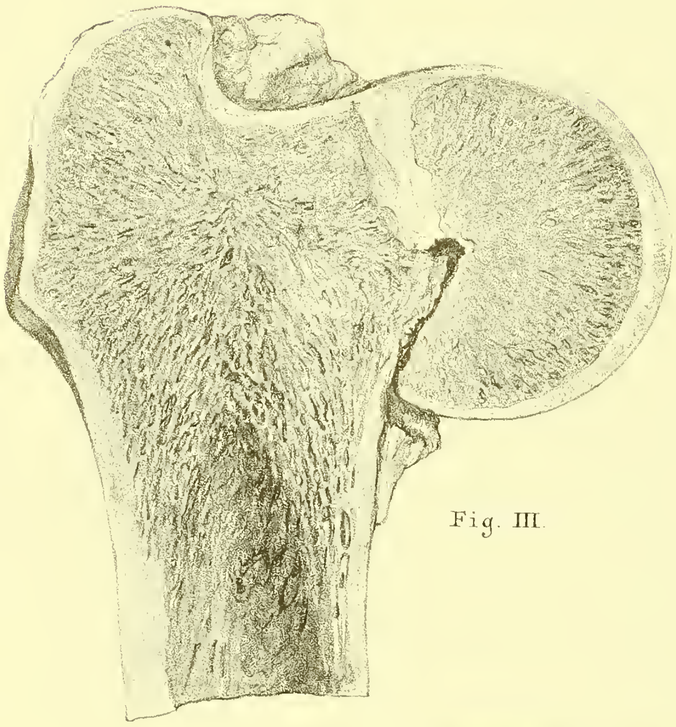

Fig. III.

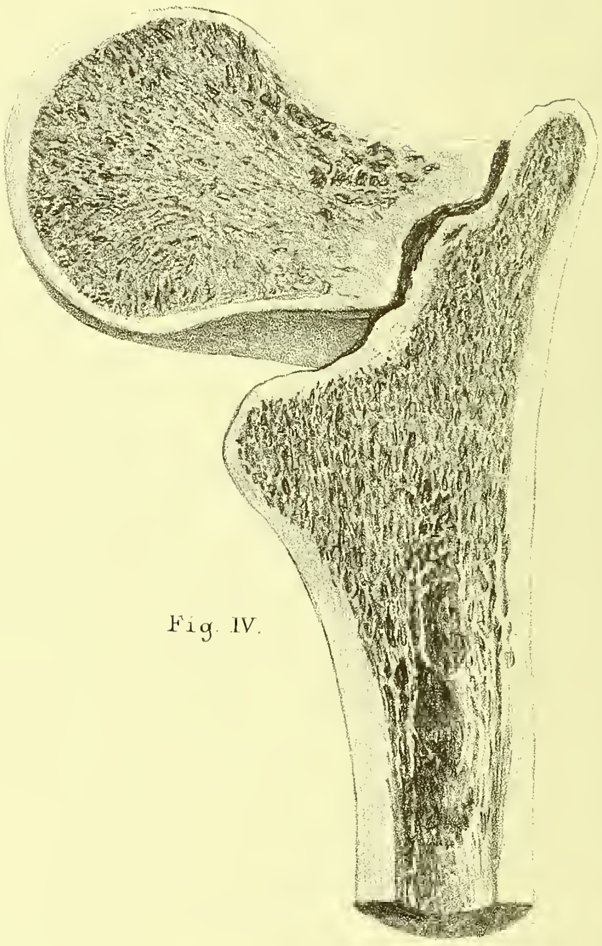

Fig. IV.

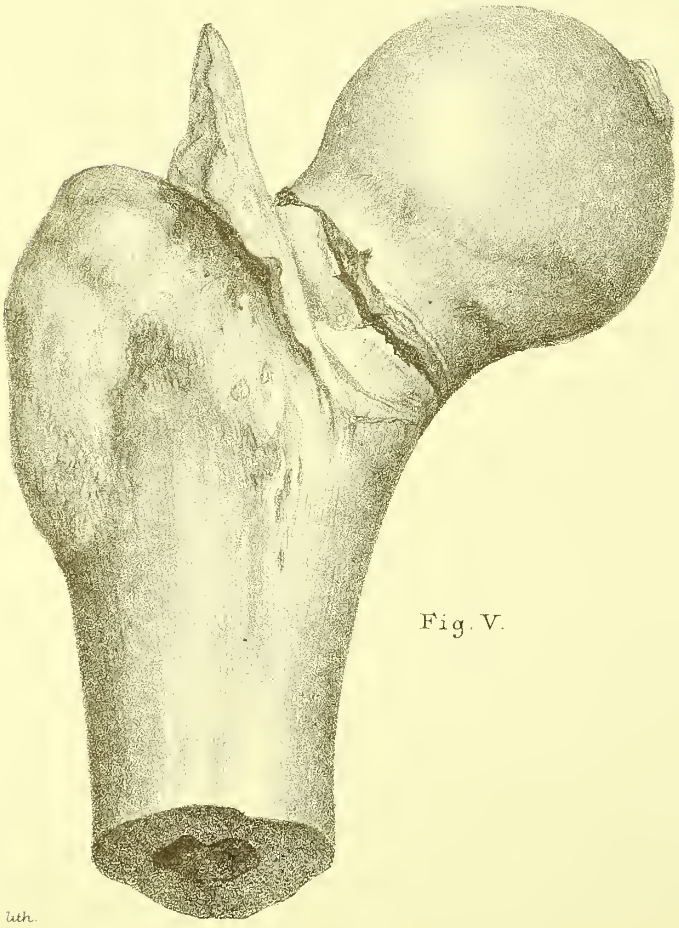

Fig. V.

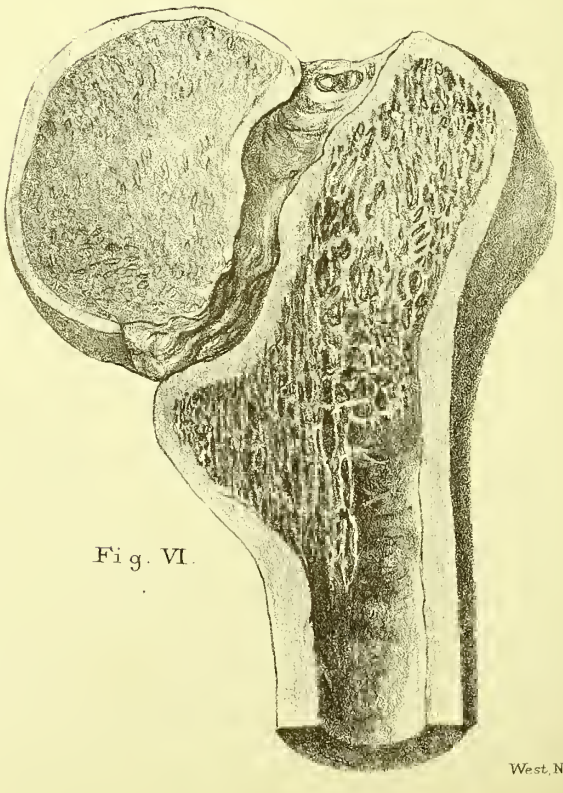

Fig. VI.

E. Burgess lith.

West, Newman & C°

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PLATE LXII.

VARIOUS RESULTS AFTER INTRA-CAPSULAR FRACTURE OF THE NECK OF THE FEMUR.

Fig. I shows an intra-capsular fracture close to the head of the bone, with secondary absorption of the neck. The head fits close on the shaft, and is slightly below the level of the great trochanter. There is fibrous union and there are also some evidences of rheumatic arthritis. Such arthritis is common after injuries.

Fig. II is from an intracapsular fracture, close to the head, in which no union whatever has occurred. There is a well formed false joint; the inner side of the femur affording a hollow into which the neck of the bone fits. It will be seen that a dense layer of hard bone has been formed as the base of this shallow cup. The head of the bone is anchylosed in the acetabulum. There must have been very considerable shortening, for the great trochanter was much above the level of the head.

Fig. III. In this instance a partial impaction has occurred. The shaft has been driven upwards, and the great trochanter has been driven above the level of the head. The neck is considerably shortened and quite horizontal. There is firm fibrous union between the fragments in the upper half of the line of fracture.

Fig. IV shows a fracture through the base of the neck, close to its junction with the shaft. There has been no union, and a false joint, not admitting of much motion, has resulted. The upper part of the femur has been somewhat expanded and altered in shape, and against it the broken surface of the neck rests. On the surface of both bones the cancellous tissue has been covered in by a dense layer.

Fig. V exhibits a recent fracture just within the capsule, and without any displacement whatever. The fracture gapes a little in front, but posteriorly the periosteal investment of the bone is not torn through. In this instance it must have been almost impossible to detect the fracture during life. There could not have been any shortening whatever. A little eversion and inability to use the limb were probably the only symptoms. The bone appears to have been that of a non-senile adult, the neck being very oblique. No doubt the fracture was caused by direct violence. I have seen one almost exactly like it, in which it was caused by a heavy wheel passing over the pelvis. No treatment beyond rest would have been necessary in this case, and no doubt bony union would have resulted.

Fig. VI may be contrasted with Fig. IV, for the condition of things is very similar, with the difference that there has been great absorption of the neck in Fig. VI. There is strong fibrous union between the fragments.

All these figures have been sketched from specimens in the London Hospital Museum.

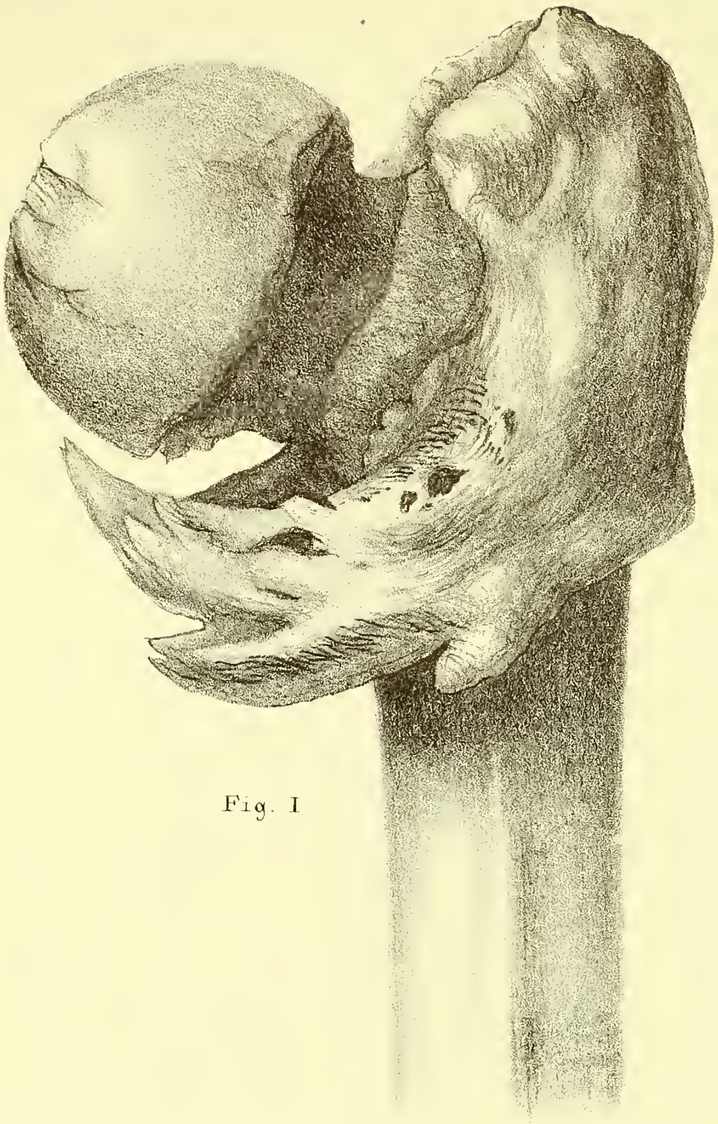


Fig. I

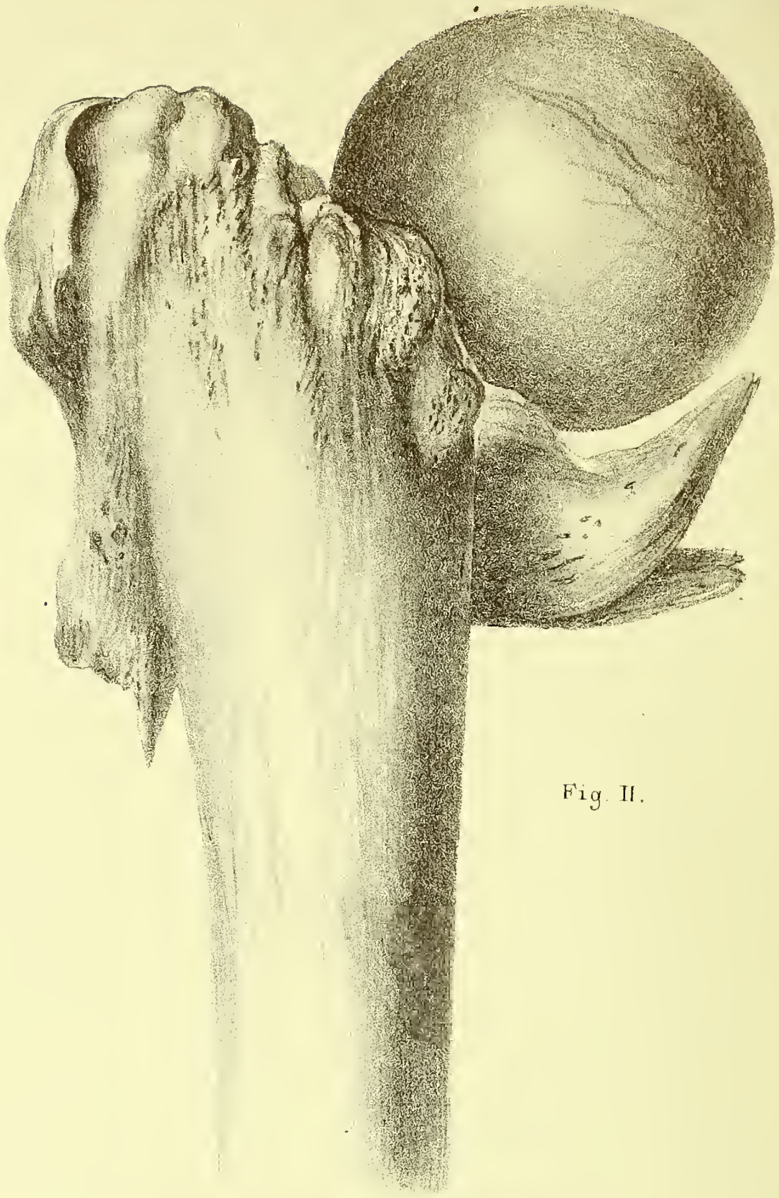


Fig. II.

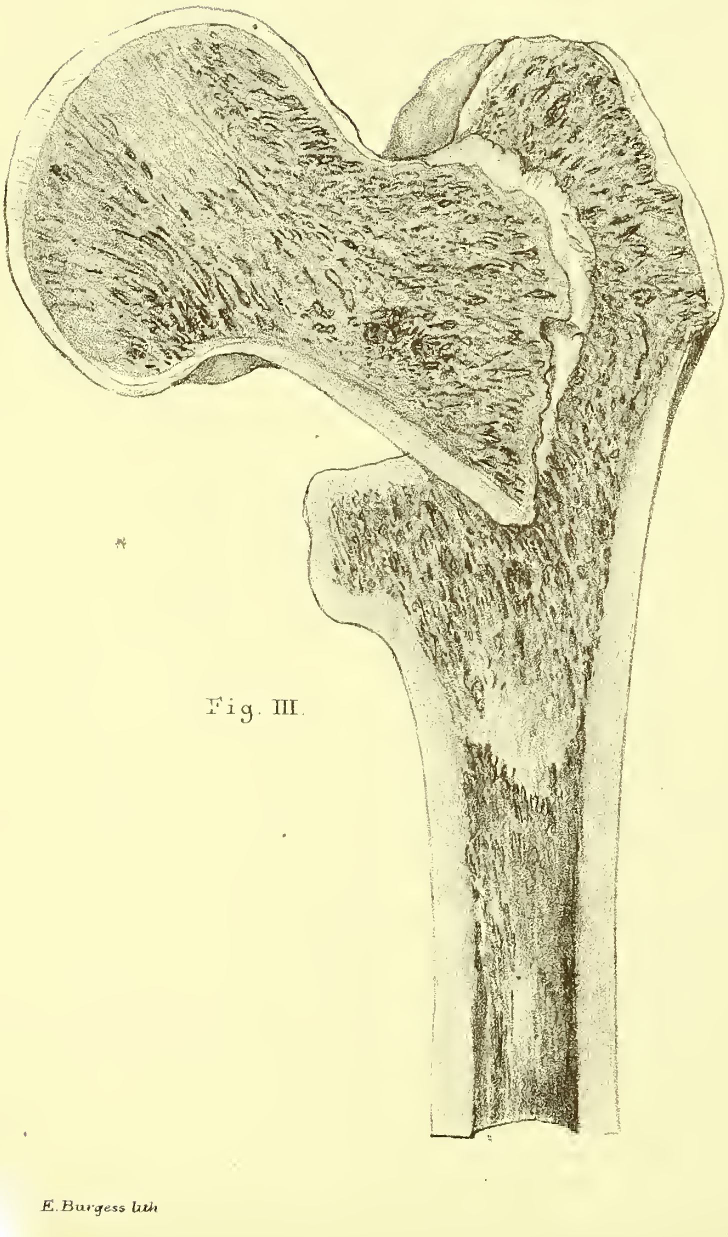


Fig. III.

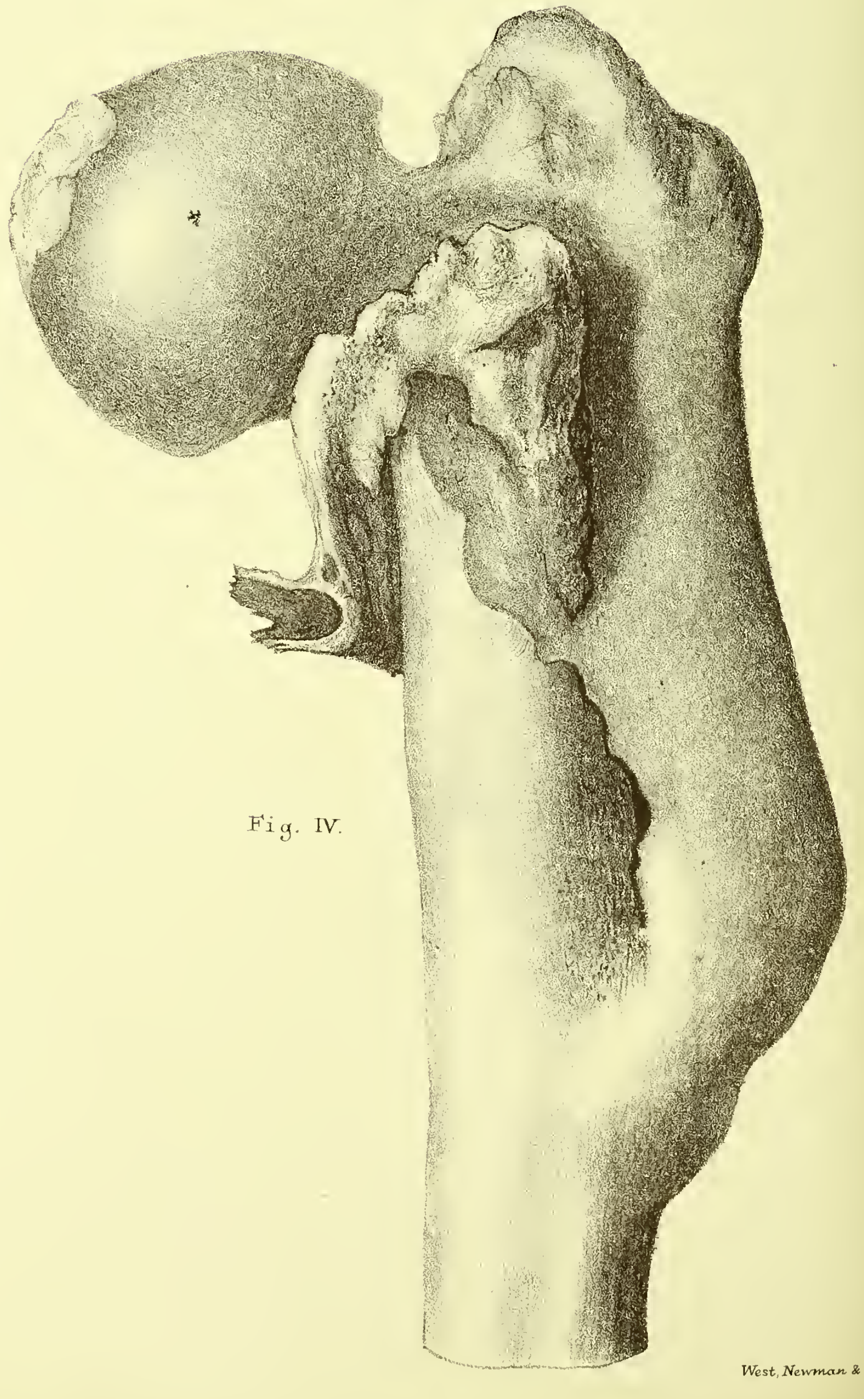


Fig. IV.

E. Burgess lith
West, Newman & Co imp

PLATE LXIII.

EXTRA-CAPSULAR FRACTURES OF THE NECK OF THE FEMUR.

Figs. I and II show a back and front view of the same specimen. There has been a fracture through the neck with splitting of the great trochanter. Bony union has occurred with great shortening, and with a development of large spurs of new bone round the site of union. One of these projects under the neck, and must have very much restricted movement. No doubt the specimen was from a case in which there was tendency to rheumatic arthritis, and quite possibly from a subject of locomotor ataxy. No history has been preserved.

Dr. Gordon, of Belfast, showed me from his collection a specimen which was the exact counterpart of this.

Fig. III. An impacted fracture in which the neck of the bone has been driven into the cancellous tissue of the great trochanter and shaft. The fracture has occurred close to the junction of the neck with the shaft, there has been no absorption of the neck, but the deep impaction must have produced nearly the same symptoms as when the neck is absorbed. The head is on a level with the top of the great trochanter.

Fig. IV. From an old fracture extending obliquely down the upper third of the shaft, from just above the lesser trochanter. It would appear that the coaptation of the fragments has never been satisfactorily effected. There must have been considerable shortening, and the upper end of the lower fragment has been displaced under the neck in such a manner as to restrict movement.

Fig. I.

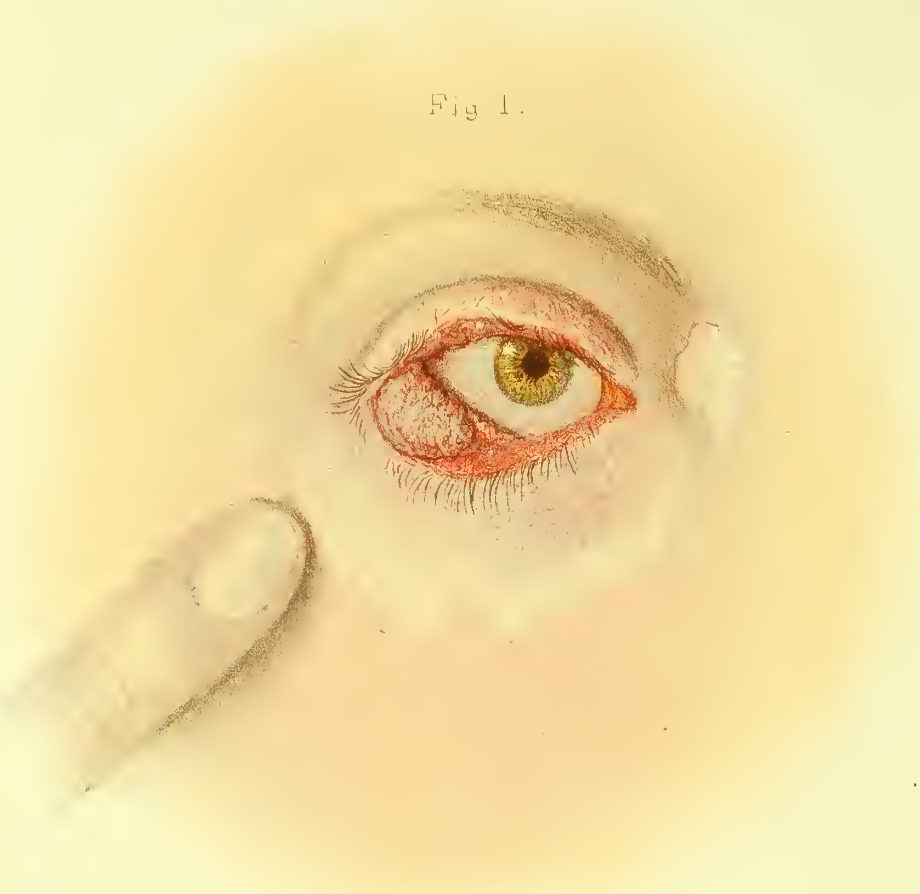


Fig. II.

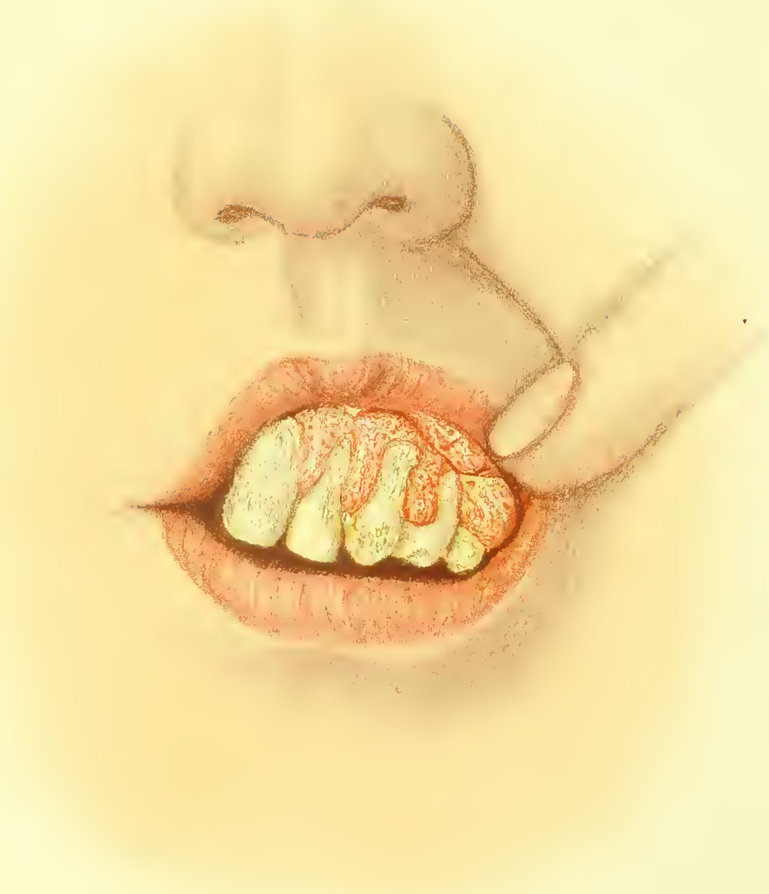
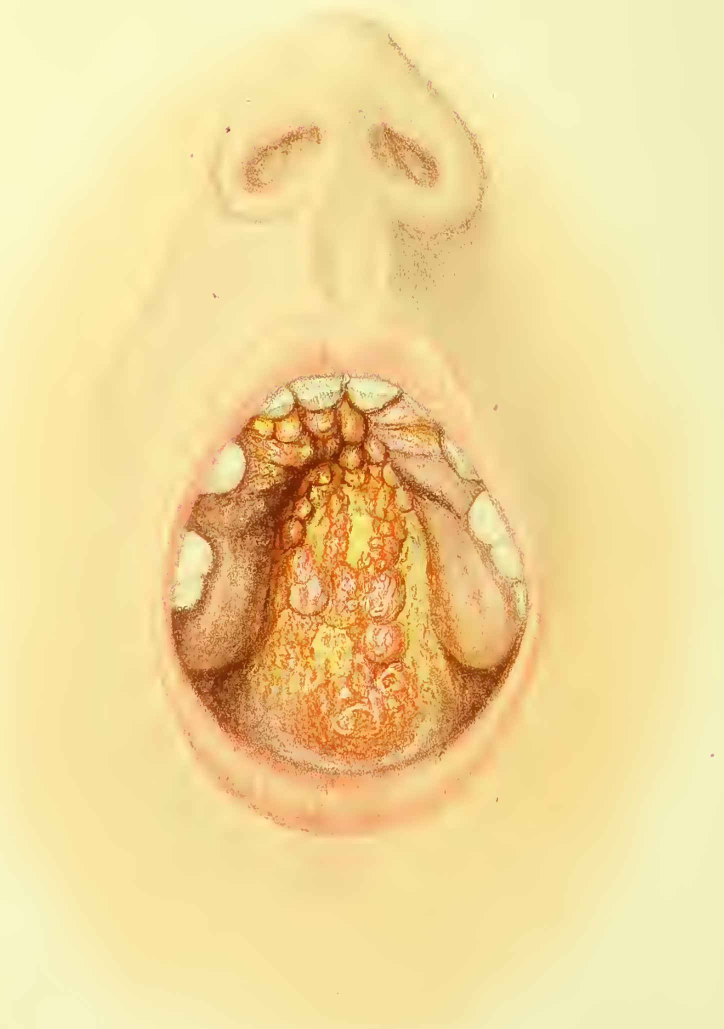


Fig. III.



[illegible] lith.

West Newman & Co. imp.

PLATE LXIV.

LUPUS OF MUCOUS MEMBRANES.

Figs. I and II are from the same patient, a dark complexioned young woman, several of whose relatives had died of phthisis, and who was herself threatened with that malady. In Fig. I it will be seen that there are white scars on the eyelid of former ulceration, but, from the manner in which this had healed, they are quite as much like those of strumous disease of the cellular tissue as true lupus of the skin. The lower lid is pulled down in order to show a mass of lupus granulation-growth on the conjunctiva. The same conditions were present under the upper lid, the state of which much resembled a coarsely exaggerated form of granular lid. The patient was under my care for many years, and we had great difficulty in keeping the disease in check. It was repeatedly destroyed by free use of the actual cautery, and finally ceased to show any tendency to recur.

Fig. II, from the same patient, shows lupus of the gums of the upper jaw. The fangs of the teeth have been exposed, and granulation masses are seen between them.

Fig. III is an excellent delineation of lupus-ulceration of the hard palate and gums. It might easily have been mistaken for syphilis, but the history was quite clear, and the patient had lupus on other parts. The character of the disease consists in a soft swelling of the mucous membrane, the development of warty granulation masses, and ulceration at their base.

Fig. I

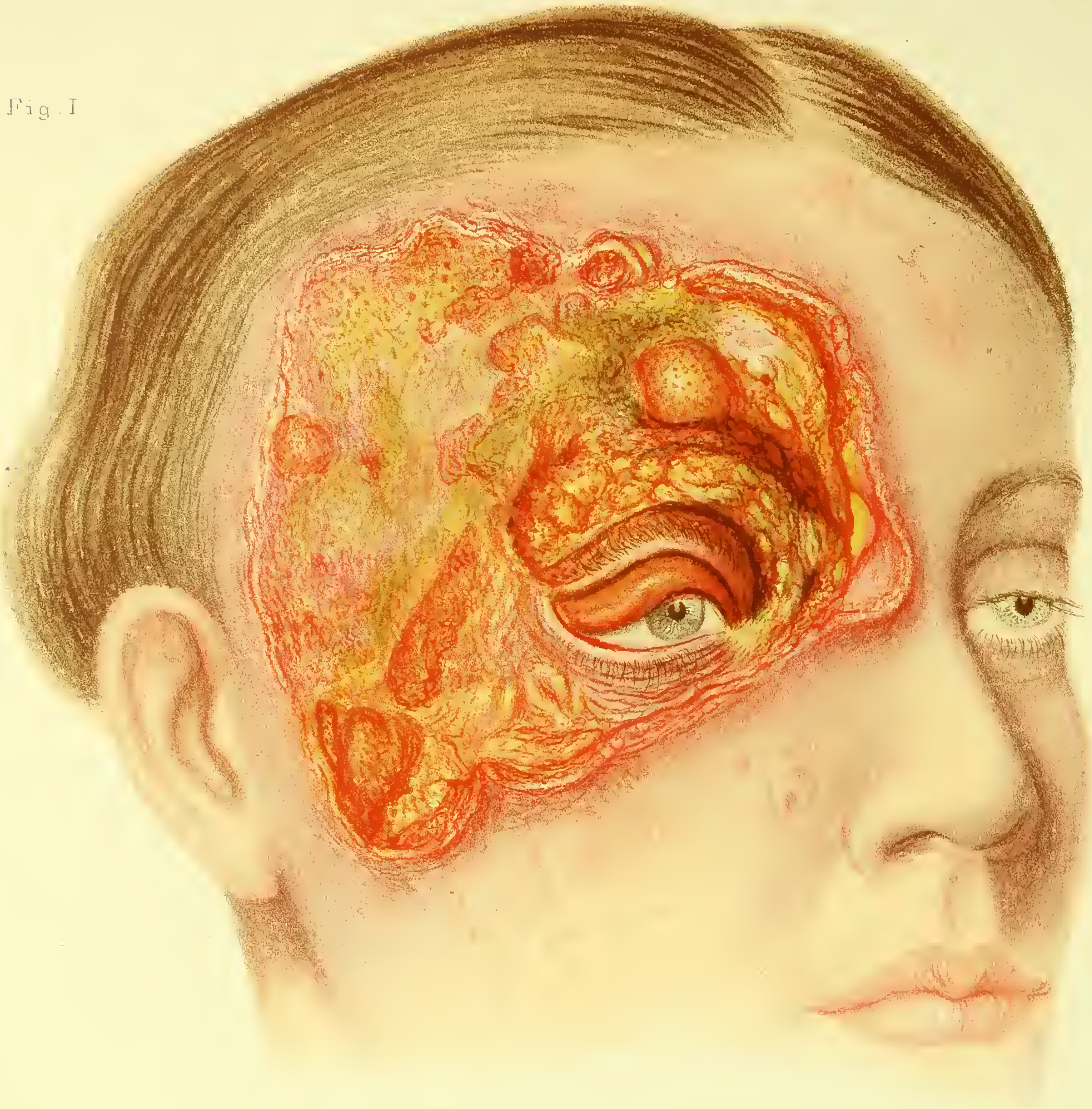
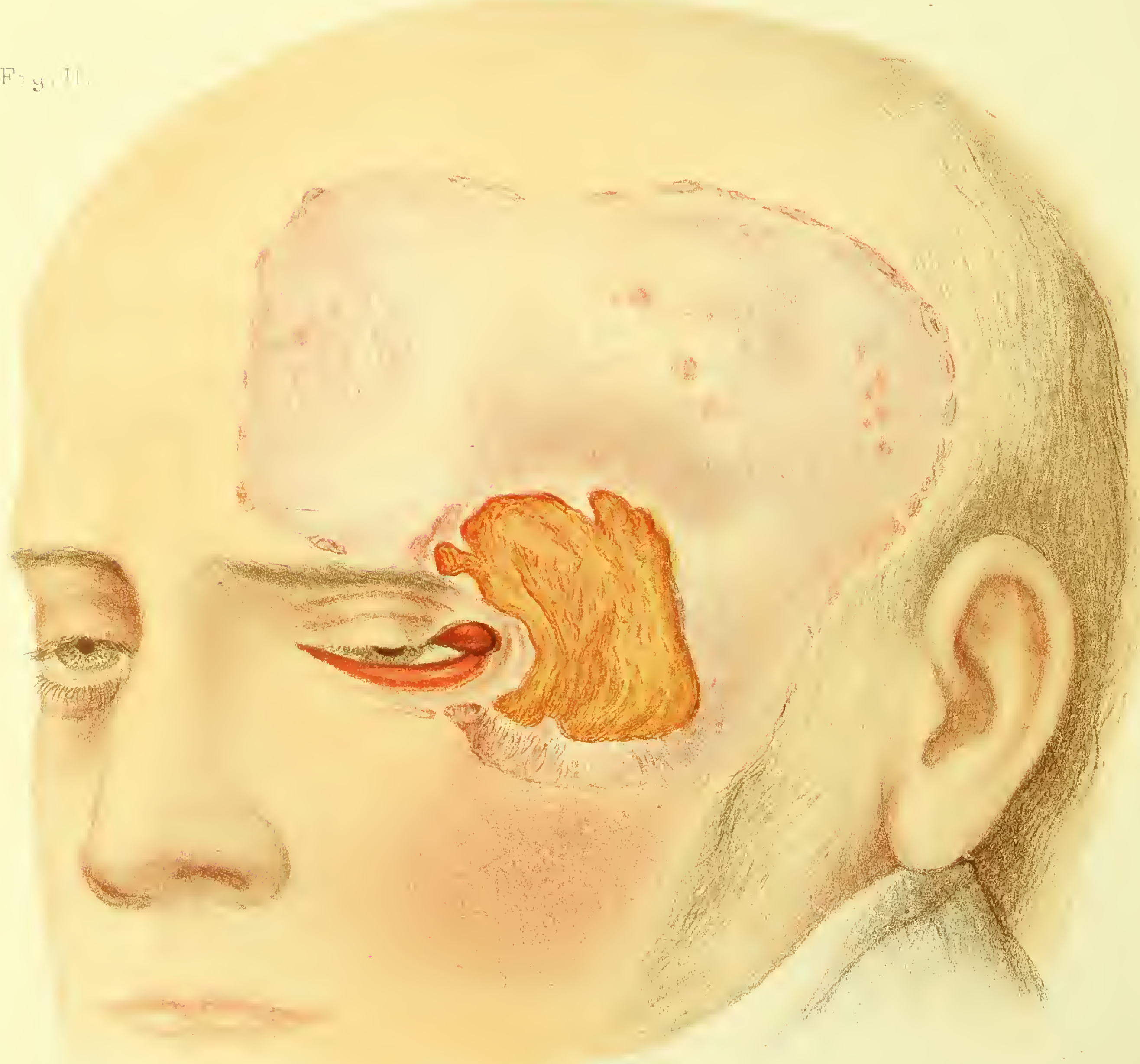


Fig. II



Burnes del et chr lith.

West, Newman & Co. imp.

PLATE LXV.

SUPERFICIAL FORMS OF RODENT CANCER.

The form of epidermic cancer known as "Rodent Ulcer" presents very various types as regards its depth of ulceration, tendency to fungate, &c. I have represented in this portrait two cases in which it was exceedingly superficial. The features of resemblance between the two are very marked. In each instance the disease has travelled widely over a large area on the temple, forehead, and upper part of the cheek, whilst it has nowhere effected any deep destruction. In Fig. II it is yet more superficial, and shows yet more prompt tendency to cicatrise than in Fig. I. In both the sinuosity of the edge is well marked, though the margin of new growth is of very little thickness.

Fig. I is from a woman of about forty years of age, who was under my own care, and in whom the disease had existed for many years.

The following are the particulars of her case:

Mrs. Eales was aged thirty-nine in 1872, when this portrait was taken. The ulcer had been present seven years, and had spread much more rapidly of late. It subsequently spread both deeply and on the surface. The nose and both eyes were destroyed, and it also passed backwards over the head. Local treatment was used irregularly, as she would not consent to all that was advised. She died exhausted by the disease eleven years after its commencement. It was said that some indications of glandular enlargement in the neck were present just before her death; this I cannot verify from my own knowledge, and it is certain that none were present earlier.

For Fig. II, I am indebted to a plate which was given me by the late Mr. Cæsar Hawkins. The patient is evidently an old man, and the disease had probably existed for a long time. Over the greater part of the surface, tolerably sound cicatrisation has occurred. The amount of new growth in the aggressive margin is exceedingly small. I have seen many examples of this form of Rodent, which shows in its early stages no tendency to eat deeply, but none which displayed its peculiar characters in more marked degree than this portrait.

It is necessary to remember that this superficial spreading is often only a temporary stage. It is most essential that it should not be neglected, for sooner or later the disease almost always grows deeply, and its rate of progress is always increasingly rapid. In this respect the law of growth of cancer is like the law of population, the more there are to produce the greater is the rate of production. Thus a rodent ulcer which for five or ten years may have been superficial and insignificant, may at length take on deeper growth, and may then, in the course of a few years, after producing the most horrible disfigurement, bring about the patient's death. No trust must be accorded to the fact that the ulcer is superficial in the first instance.

It is by no means uncommon when rodent cancer is multiple to see it ulcerate deeply in one place and extend quite superficially in others. In rare instances large subcutaneous growths are produced near to the original sore, but this is always in the late stages of the case.

Fig I

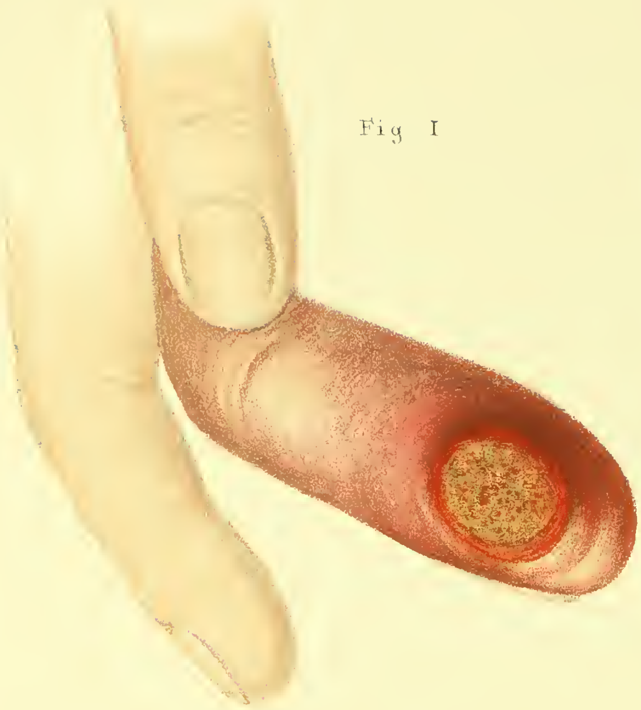


Fig. II.

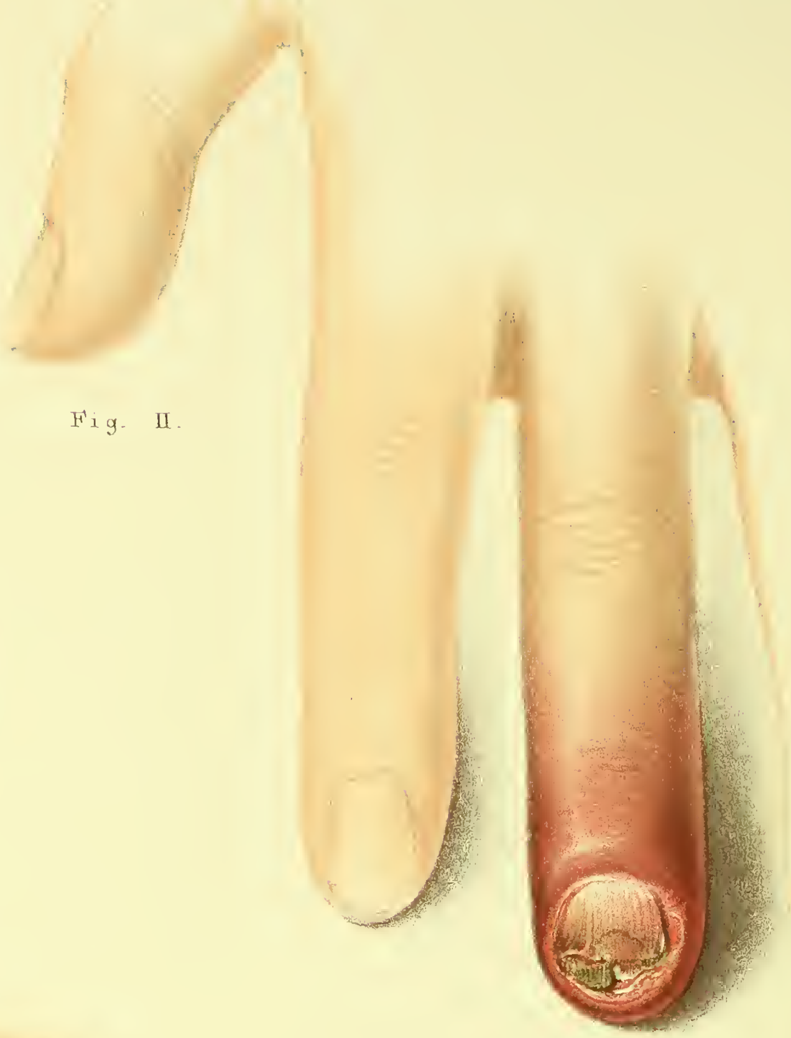


Fig III

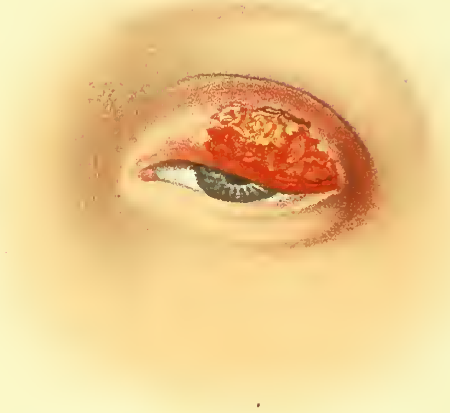


Fig. IV.

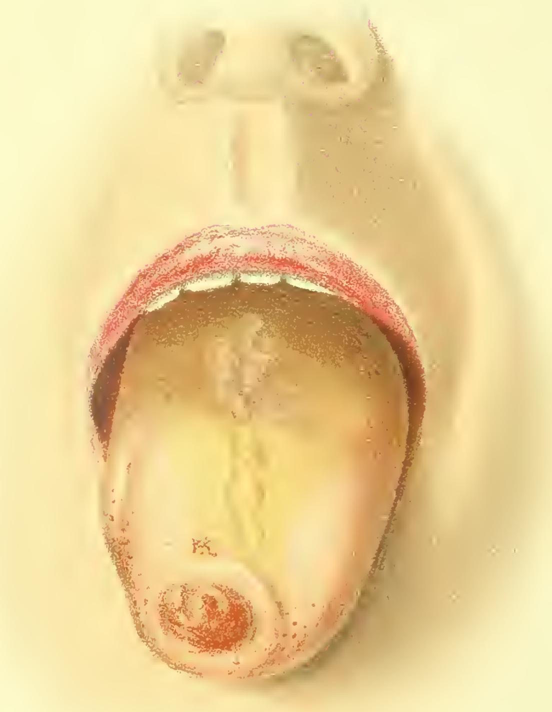
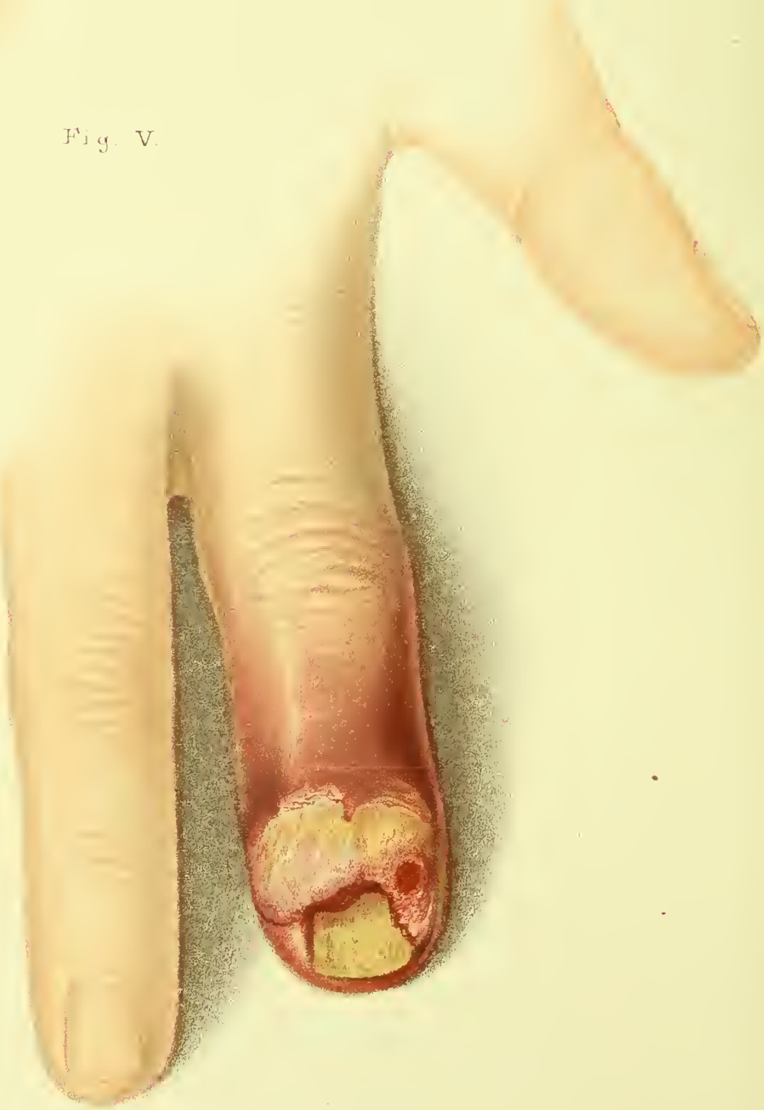


Fig. V.



E. Burgess del ad nat

West, Newman & Co. chr. lith.

PLATE LXVI.

CHANCRES IN UNUSUAL POSITIONS.

FIG. I shows an indurated chancre on the pulp of the middle finger. The patient was a dentist, who had scratched his finger, and inoculated it, in the course of manipulations in the mouth of a syphilitic subject. The conditions of the sore are well characterised, its edges being evenly rounded, elevated, and hard. It is somewhat inflamed, and the whole finger is a little swollen. Its surface secretes pus, but only sparingly. In this instance the patient had secondary symptoms and enlarged glands in the armpit before I saw him, and he passed through a very severe attack of syphilis.

Figs. II and III show the condition produced by primary chancre at the root of the nail. This form of chancre is very common, especially on the fingers of surgeons, in connection with midwifery practice. The diagnosis is often very difficult until secondary symptoms disclose the true nature of the disease. It is in order to illustrate this difficulty that I have introduced these portraits. It will be seen that in Fig. III, which shows the conditions before treatment, we have an inflamed ungual whitlow. The nail is discoloured and loose, and the swollen skin bulges over it on all sides. It is very seldom that in this form of chancre anything occurs that can be appreciated as specific induration. The sore is always extremely painful, sometimes one side of the nail is more severely affected than the other. It is almost always so in the first instance. The dusky character of the congestion is often a very marked feature, but it has been somewhat exaggerated by the artist in his sketch. This sketch was taken about two months after the infection.

Fig. II shows the condition of things on the finger of a surgeon, six months after a chancre in the nail bed, and after a cure by mercurial treatment. In these cases the finger often remains dusky and the nail more or less broken for months, or even years, after the attack.

Fig. IV a chancre on the upper eyelid of a child. It will be seen that the sore is clean and red on the surface, and without crust or secretion, and that it does not show, to the eye, any characters of induration, but simply swelling. The induration, to the finger, was moderately well marked. The sore had existed for about two months, and about a week afterwards it became congested and dusky, and looked almost as if it would take on phagedæna. The glands in the neck on the same side were enlarged and hard, but quite moveable—the bullet bubo. The patient already had condylomatous patches on his tongue, and white-edged ulcers on the tonsils. I believe that he subsequently developed a general eruption, but I do not possess any further notes of the case. He was a boy named James King, aged 5, and was under Mr. Waren Tay's care at the London Hospital in August, 1872.

Fig. V shows an indurated chancre near the tip of the tongue. It is exceedingly well characterised, having an even oval boundary, a smooth, raised, hard edge, and a clean surface. If we make allowance for difference in position, and that the one had been kept warm and moist in the mouth, and the other exposed to cold and other sources of irritation on the finger, we may say that the characters shown in this portrait and in Fig. I are exactly alike. It was probably about two months after the inoculation that this sketch was taken, but the date could not be assigned with certainty. The patient was a woman in whom the syphilitic eruption was already showing itself. It will be seen that there is a group of warts in the middle region of the tongue posteriorly. I possess several other sketches showing a warty or condylomatous patch in exactly this region in cases of constitutional syphilis. One such has already been given in the illustrations of syphilis after vaccination. In this case there was a mass of enlarged glands under the angle of the jaw.

Remarks on Syphilis sine Coitu. Erratic Chancres.

What may be called erratic chancres,—or chancres on other than the parts usually affected,—are, I am sure, much more common than is generally suspected. They are of great importance, not only on account of the social injury which may be caused to the individuals, but from the mistakes to which they may lead in clinical observation as to the course of syphilis. Thus it may not infrequently happen that a young child, or an infant, may have had an erratic chancre which has never been recognised, and that the subsequent results may be attributed to congenital disease. The diagnosis of these chancres is often extremely difficult. I have, over and over again, seen them on the hands of well-trained medical men who themselves never suspected the nature of the sore until secondary symptoms appeared. The limits of variability as to the conditions of these sores are very wide indeed. An infecting chancre on the finger may never show anything more than a small dusky spot, not ulcerated, not attracting attention for more than a few weeks, and leaving nothing but a little brown stain. Yet, after such a sore, there may be a full development of syphilis. On the other hand, there may be such an excess of inflammatory action that all trace of specific induration may be concealed. The chancre itself may, in some cases, spread very widely. Thus I have known a case in which an indurated sore, by no means phagedænic, included nearly the whole of the palm of the hand, and another, in which nearly the whole side of the face was involved. As regards position, these sores may occur on any part of the body. On the lips from kissing, the use of drinking vessels, pipes, &c., they are very common. The midwifery chancre on the finger is a form from which medical men suffer most severely, and it assumes a great additional importance from the risk there is of conveying it to their patients. Chancres on the nipple are also not very infrequent, although I cannot say, in my own practice, I have seen more than, perhaps, half a dozen; they are not restricted to married women. Amongst the more infrequent positions, I may mention that I have seen a primary sore in the middle of the sole of the foot, on the ear, on the nose, and on the skin of the chin at some distance from the lip. I have three times seen them on the tongue, twice on the tonsil, and once on the conjunctiva of the eyeball. The two which occurred on the tonsil was explained, one by the patient having put the nossle of an infant's feeding bottle into his mouth, whilst in the other, a surgeon, believed that he had received a splash of liquor amnii into his face and mouth.

Even in cases in which chancres are met with on the genitals they are not always consequent on coitus. In children they are not infrequently accidental, and the stories which we so often hear as to infection at water-closets, &c., are, I doubt not, in exceptional cases, really true. In two instances, at least, I have known an epidemic of syphilis from inoculation of the genitals during labour from the finger of the accoucheur. In one of these it was from the carelessness of a midwife who had been warned, and in the other it happened to a medical man who had not recognised the nature of his sore.

Memoranda in reference to Erratic Chancres.

The following memoranda on this subject may prove of interest.

Soft or non-infecting sores are never observed excepting in the genitals. It is difficult to assign a satisfactory reason for this. It may be that they seldom develop their peculiar features excepting on the genitals, and are thus not recognised when seen on other parts.

Erratic chancres are, like those from coitus, usually single. In some cases, however, they may be multiple. Thus I have in policemen, in two instances, seen several existing at once as the result of injuries received in scuffles with infected men. In another case, a sailor, who had fought with a diseased comrade, who bit him in many places, had six or eight indurated chancres on his fingers, forearm, one ear and chin.

Although induration is often present in a most marked degree it is often absent, and the diagnosis may become most difficult. The surgeon should in such cases carefully examine the lymphatic glands. The chancre which affects the nail bed is scarcely ever indurated and often suppurates very freely.

It is impossible to make too much allowance for the extraordinary appearances which these chancres sometimes take on. Their enormous size is often very misleading. As above stated I have seen one which occupied almost the whole of a man's cheek, and in another plate I shall give a portrait of a very large and deep sore on the chin of a young lady which proved to be an infecting chancre. There is an opinion abroad in the profession that syphilis, when consequent on an erratic chancre, is a more severe disease than when following a sore in the genitals. I do not believe that there is any foundation for this creed. Syphilis, however produced, is one and the same malady. In different individuals it may vary very greatly in its severity, but these differences have nothing to do with the location of the infecting sore.

In proportion to the number of chancres observed in them women show the erratic form much more frequently than men. The gross total of those who present them is of men much larger than of women.

Local abrasions, cracks, fissures, &c., are often known to have been present before the inoculation, but in many cases it seems probable that the poison was implanted on unbroken skin ; at any rate the patient is often quite unable to recollect the existence of any sore.

Just as, in rare instances, with sores on the genitals, so with these erratic ones, their features may be so slightly marked and their duration so brief that no suspicion as to their serious import is entertained. I have several times been assured by surgeons that the primary sore on a finger which proved infectious, lasted only a week or two, and was never more than a little papule. In these cases the induration of the lymphatics is often also almost wholly omitted, for it is generally in ratio with the size and induration of the primary sore.

The midwifery chancre is so common, and its effects so disastrous, that it behoves those engaged in this line of practice to take the most scrupulous precautions. All sores on fingers in surgeons should be protected by india-rubber finger-stalls, and even when the skin is quite sound, vaseline or some equivalent should be very freely used.

It is to be noted that erratic chancres scarcely ever become phagedænic. They may be attended by much inflammation, but I do not know that I ever saw one affected by well-marked phagedæna. Clearly there is some peculiarity in the tissues of the genital parts which favours the occurrence of this form of inflammation.

Although in a few instances erratic chancres may result from immoral practices, yet it may be held that in a vast majority of cases they are matters of accident, and imply no fault whatever in those who suffer from them.

Fig. I.

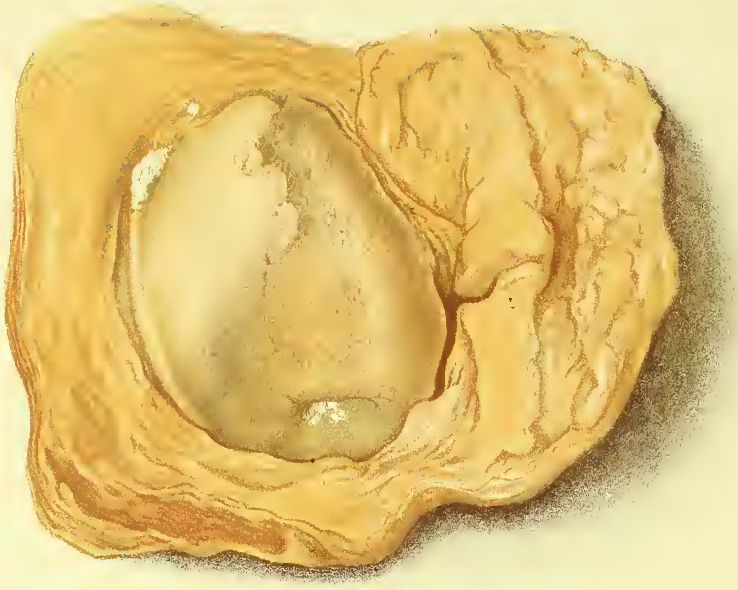


Fig. II.

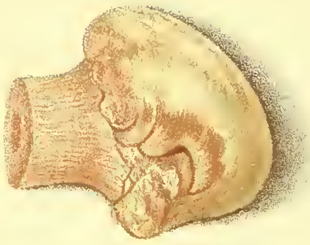


Fig. III.

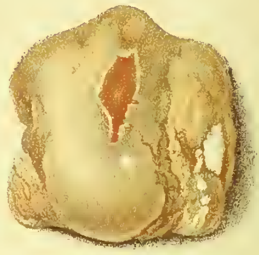


Fig. IV.

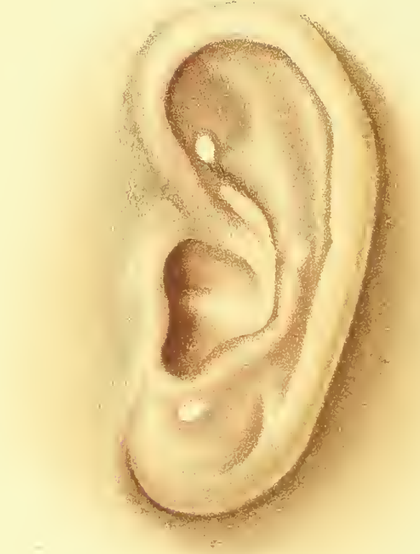


Fig. V.

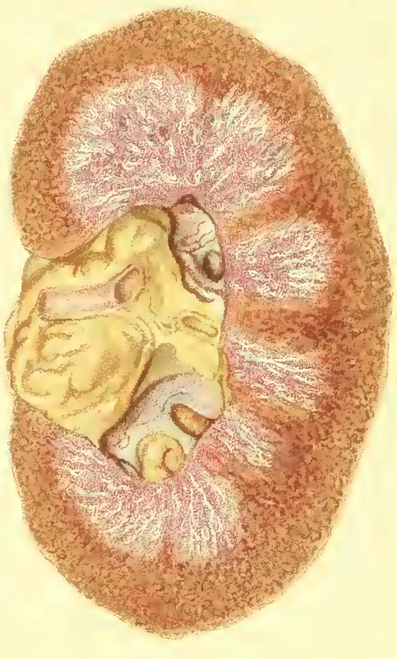


Fig. VI.

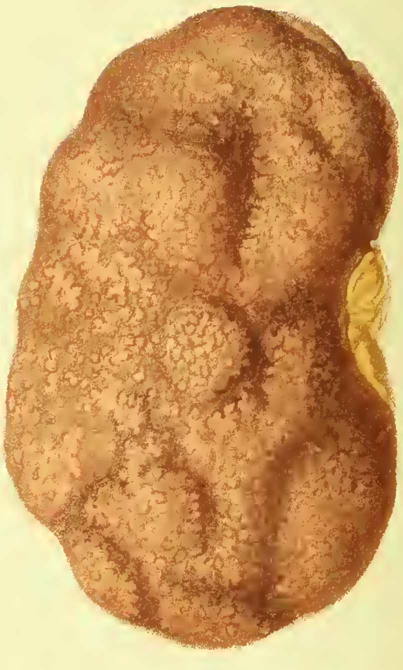
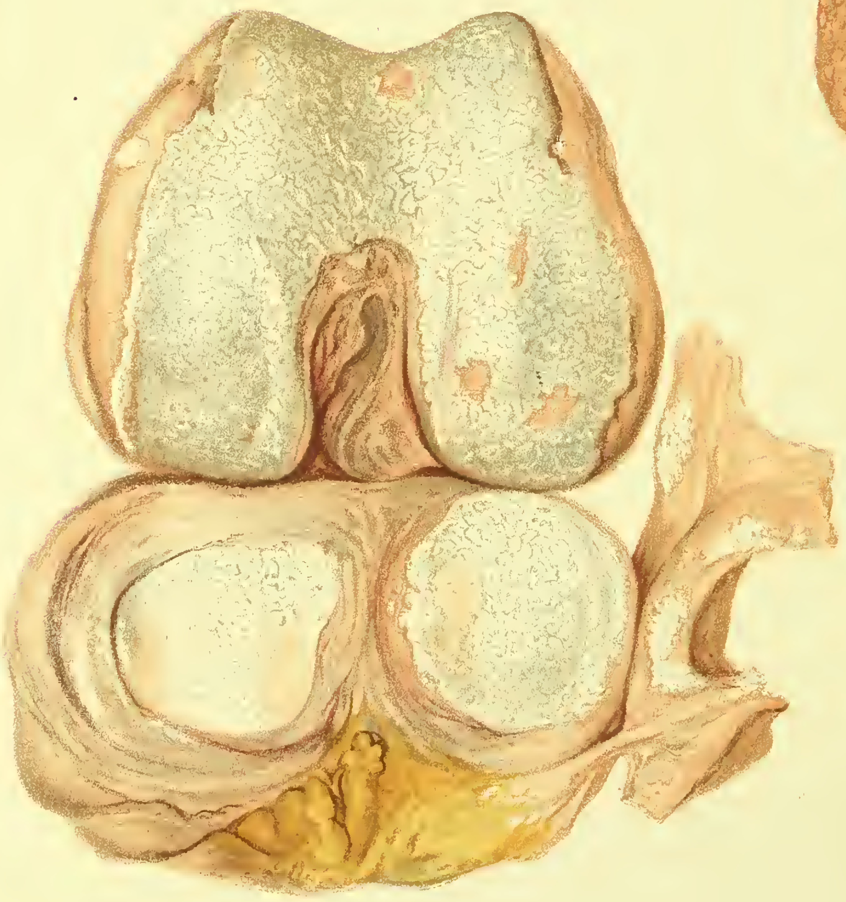


Fig. VII.



rgeas del ad nat

West, Newman & Co. chr. lith.

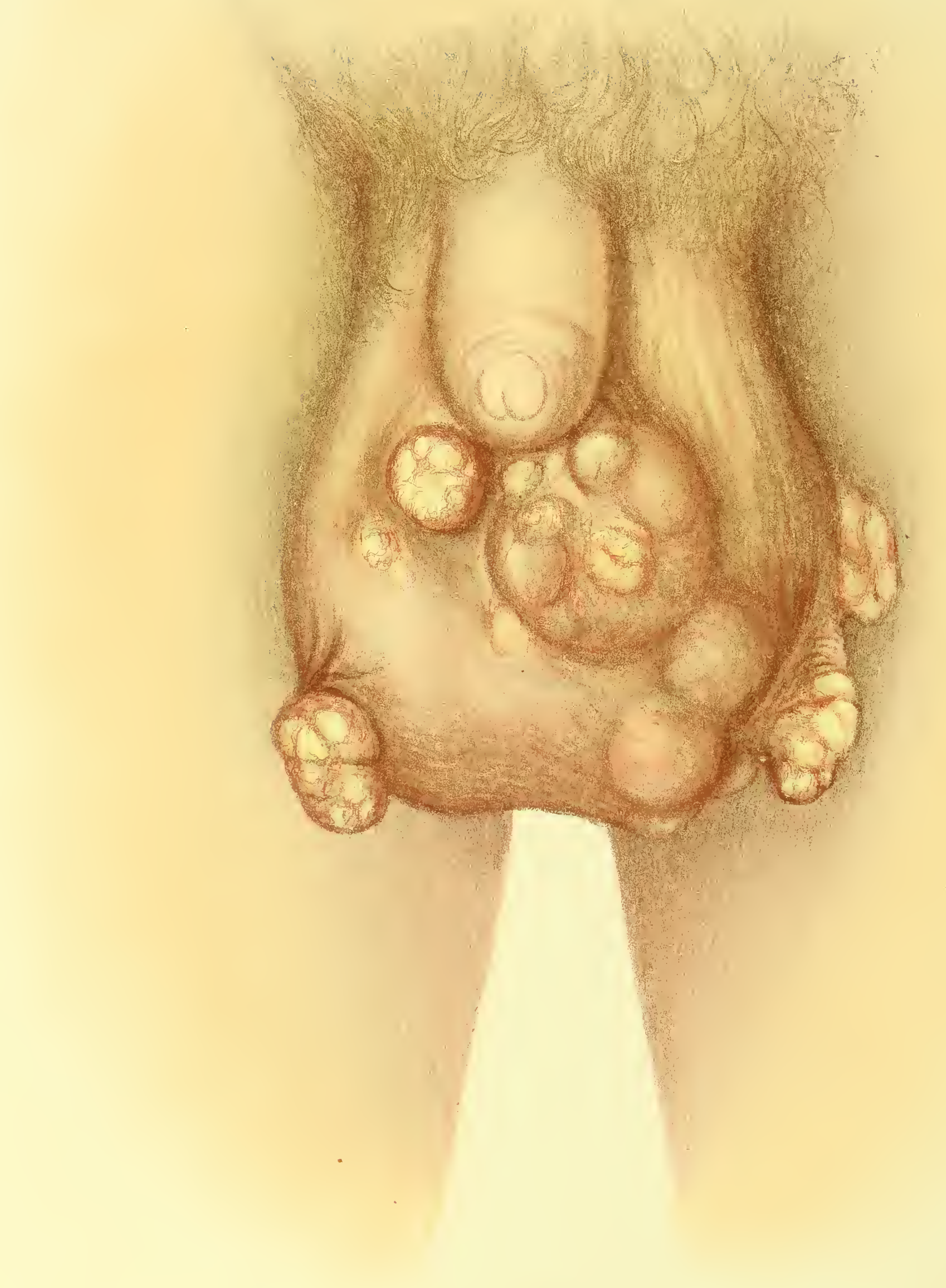
PLATE LXVII.

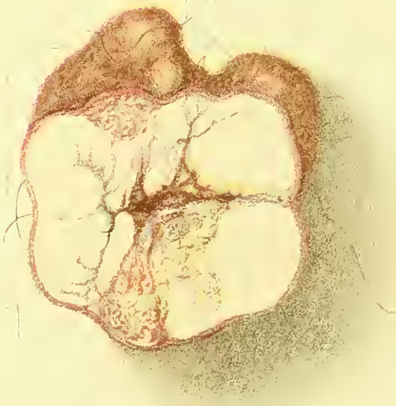
GOUT AND RHEUMATIC GOUT.

THE portraits given in this plate were taken with the double object of illustrating the typical condition of true gout, and, secondly, its occurrence together with the changes characteristic of rheumatic arthritis. In Fig. IV we have a fair example of tophi in the ear; there are three little white nodules, two of them very definite, the third less so. Figs. VI and VII show the contracted granular kidney of gout. In Fig. VI its small size and rough nodular and granular surface are well seen, whilst in the section view given in Fig. V we see the tubules plugged with white urates. Fig. VII shows a knee-joint opened, its cartilages everywhere infiltrated and encrusted with white urates, as if painted. Although displaying a preference for the encrusting articular cartilages, the deposit is not confined to them, but is seen in both the semilunar cartilages, and especially in that which is displaced on the right. It occurs, also, to smaller extent in the synovial membrane which adheres to it. There is not much evidence of rheumatoid arthritis in this knee, but close inspection will reveal the presence of slightly marked lips on the anterior borders of both condyles.

Figures I, II, and III (from another subject) show the coincidence of urate of soda deposits with very advanced changes indicative of rheumatoid arthritis. The little patches of urate, looking like white paint, are conspicuous both on the edges of the patella, which is the subject of Fig. I, and also on the outgrowths from the head of the metacarpal bone of the great toe, which are displayed in Figs. II and III. The cartilage of the patella has become fibrous and been worn away in Fig. I, and at its edges small but distinct outgrowths, or lips, have been produced. In Figs. II and III the outgrowths are very large indeed, and completely surround the head of the bone. The cartilage has been everywhere thinned and, in one place, worn away so that denuded bone is exposed.

The conditions shown in these three sketches, so far from being rare, are I believe quite the rule. Instead of gout and rheumatic gout, or chronic rheumatoid arthritis, being disorders which are usually met with as distinct maladies, they are absent always in combination. Many cases of rheumatoid arthritis occur without any admixture of gout, but it is exceptional to find gout without rheumatic arthritis. Thus, I believe, it would be true if we were to say that gout is usually a complication of, or addition to, chronic rheumatism. When the subjects of an inherited tendency to the latter become, either by inheritance or acquisition, the subjects also of gouty dyspepsia and granular kidney, then their rheumatic joint changes become modified, and the phenomena known as gout are superadded. The extent and severity of the gout complication will vary with the habits of the individual. The subject is too long a one to be discussed in detail here, and I have written at length upon it elsewhere. For present purposes it may suffice to state that almost all our museums contain specimens which are the parallels of those here shown, and that they prove that when lithate of soda deposits are present in a joint, it is most exceptional not to find also proofs of rheumatoid arthritis (wearing away of cartilage and the outgrowth of lips). I make this formal assertion from an inspection, I believe, of all the specimens and models in the London museums.





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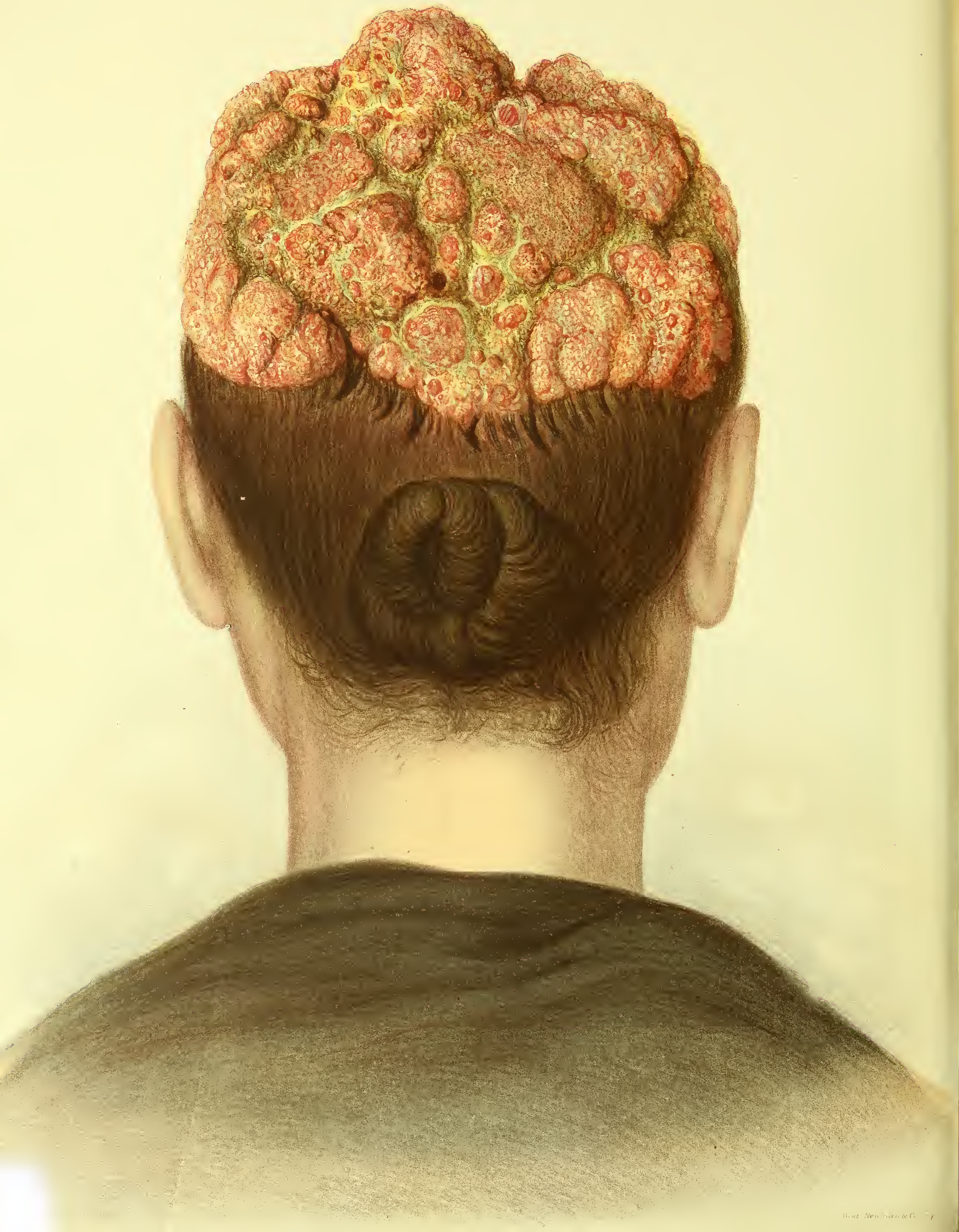
West Newman & Co imp.

PLATE LXVIII.

SEBACEOUS GLAND TUMOURS IN THE SCROTUM.

It is a matter of common observation that the sebaceous glands of the scrotum vary much in size in different individuals. In many young adults they are as large as swan shot, and sometimes almost as hard, and as age advances they usually slowly diminish. They are, I think, more frequently large in the subjects of acne—who have a liberal development of the sebaceous gland system—than in others. Young men sometimes take alarm at their condition and seek advice about them, but never, in my experience, because they occasion any inconvenience. The case shown in the portrait exhibits changes in these glands which are, I believe, exceedingly rare. I do not recollect ever to have seen another case like it. Instead of shrinking as age advanced, a certain number of the scrotal glands had developed into tumours of considerable size, which finally contained a dry, almost cretaceous substance.

The patient was a gentleman who came under my care for another ailment, and in whom these tumours were observed by accident. He said that they had been gradually forming during most of his life, and he gladly fell in with the suggestion that they should be removed. He was fifty years of age. I excised the whole crop, and the section of the largest is seen in the lower figure. No tendency had been shown to the formation of sebaceous tumours in the scalp or elsewhere.



West Newman & Co imp.

PLATE LXIX.

EXTENSIVE FUNGATING GROWTH IN THE SCALP.

From a patient of Mr. Rivington's in the London Hospital in 1877.

The subject of this case was a woman aged 67. The disease had possibly begun in an enlarged sebaceous follicle, and was of the nature of "Cock's peculiar tumour of the scalp." As to its mode of origin, however, there was no clear evidence. When the woman came under Mr. Rivington's care the whole of the top and back of the scalp was, as shown in the sketch, involved in a fungating cauliflower growth. There was no deep ulceration anywhere. There was profuse secretion and much fetor; at the margins of the sore the granulation masses overlapped the skin. There was no gland disease. Mr. Rivington excised the diseased mass piecemeal, and chiefly by means of Pacquelin's cautery. There was very profuse bleeding. The sore healed by granulation and a complete recovery resulted. The woman lived, to my knowledge, five years afterwards, and had no return of the disease, either in the glands or on the scalp. She was, at that date, under my care in the London Hospital for senile gangrene of the foot, and recovered after amputation through the thigh.

The completeness and permanence of the recovery in this case affords strong corroboration of the opinion that the disease was not epithelioma, nor a papilloma in the more ordinary sense of that term. That it consisted of papillary developments was clear, but the question of most interest was as to the structure in which it had originated. Had it been epithelioma there is little doubt that the glands would have become implicated, and had it been a papilloma which began in the papillæ of the skin it would most likely have recurred at the edges of the scar. The peculiar fungating tumours which result from enlarged sebaceous glands, not unfrequently, I think, exhibit precisely these clinical peculiarities. They fungate rapidly, produce a large cauliflower-like mass, become very fetid, and present a most alarming appearance, but are easily amenable to

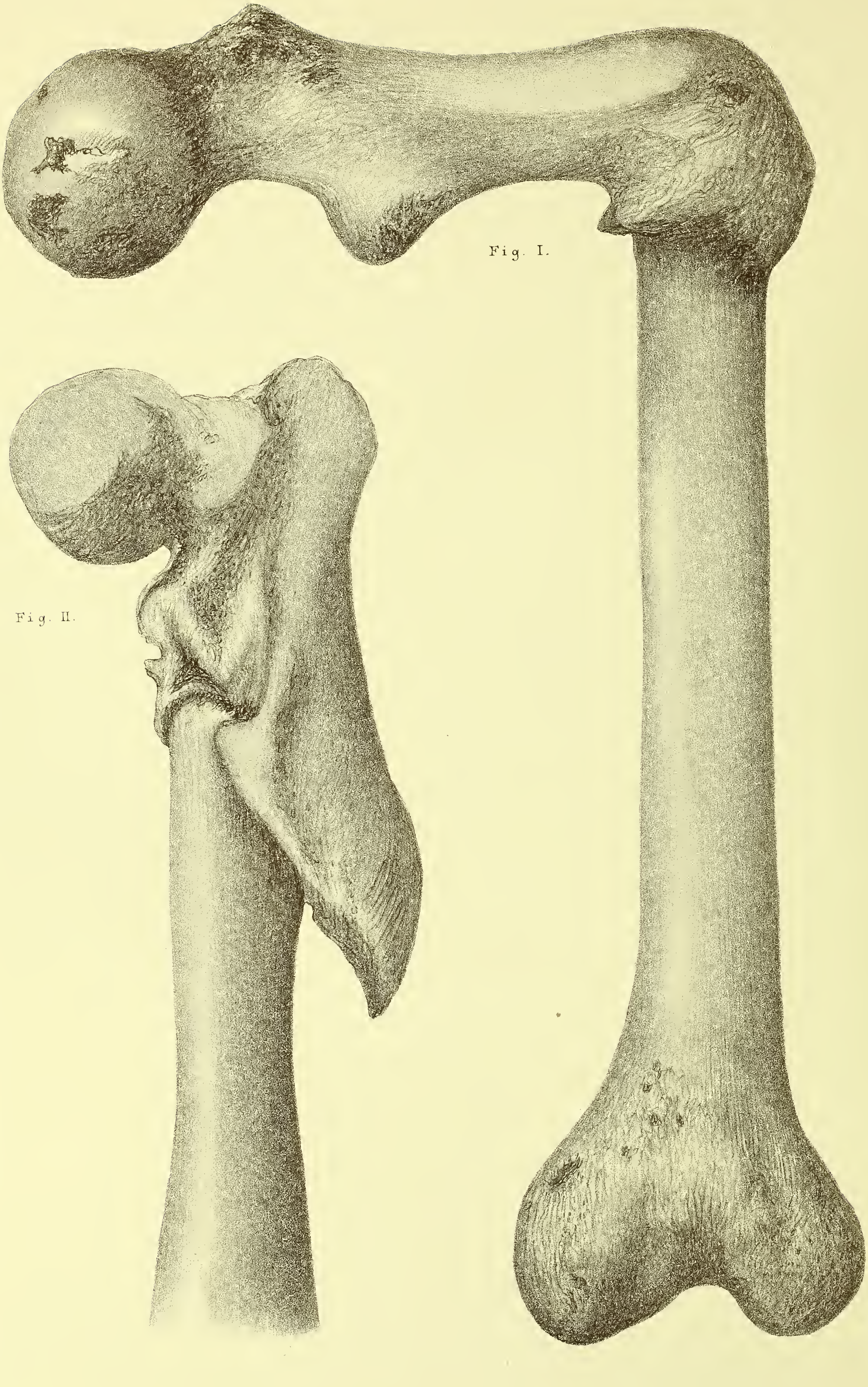


Fig. I.

Fig. II.

E. Burgess lith.

West, Newman & Co imp.

PLATE LXX.

MAL-UNION AFTER FRACTURE OF THE FEMUR.

Both the drawings in this plate were sketched from specimens in the Musée Dupuytrén in Paris. No history of the case is forthcoming with either.

Fig. I shows the greatest amount of angular displacement in a united fracture of the femur that I have ever seen; the fracture is a little below the junction of the upper with the middle-third, and the union is literally at right angles. It is quite possible that the bone bent gradually, in consequence of premature walking after the union was supposed to be complete. The accompanying woodcut is from a patient of my own in the London Hospital. We see in it an approximation to the condition illustrated in the Paris specimen. The surgeon who sent this patient to me and who had treated the original fracture, assured me that when the lad left his bed, the limb was quite straight and the fracture was believed to be firm; the bending took place when he began to walk about, and it was still increasing when, five months after the fracture, he came under my care. The patient was a lad of sixteen, and he had been walking on the limb without discomfort. I failed in the attempt to straighten the bone by forcible bending on the knee, and accordingly cut it through with a chisel. It was then easily put straight. The woodcut is copied from a photograph. It is obvious that with such a degree of angular union as that shown in the plate, the limb must have been almost useless. It is almost impossible to conceive that it could have been allowed to unite in such a position in the first instance.

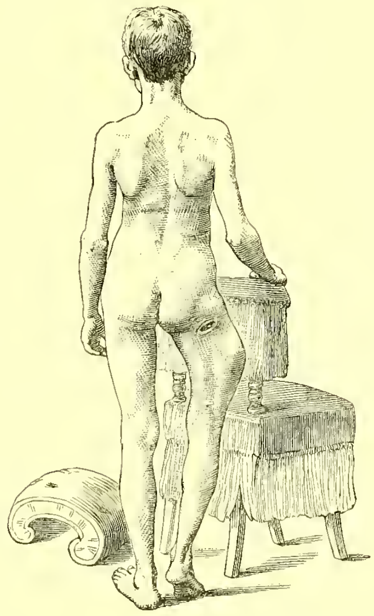


Fig. II shows the condition of things after an oblique fracture in the upper third of the femur. The lower end of the upper third is displaced as usual outwards, and there is considerable overlapping.

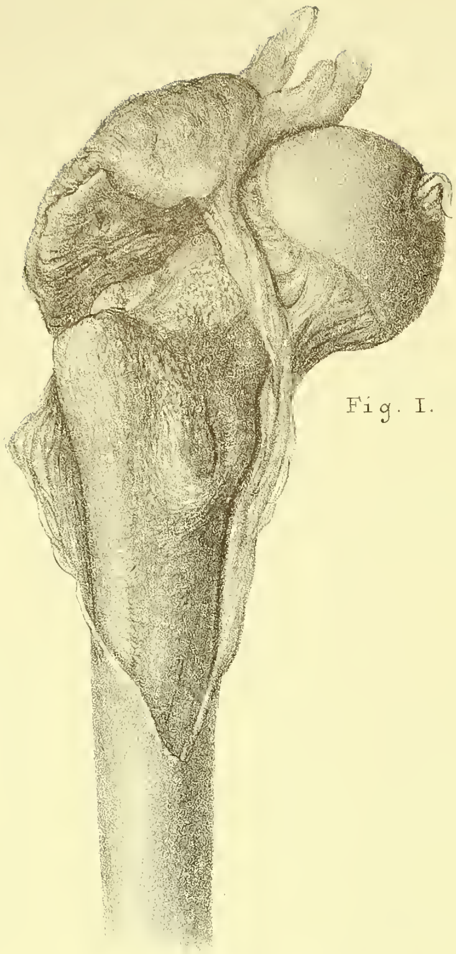


Fig. I.

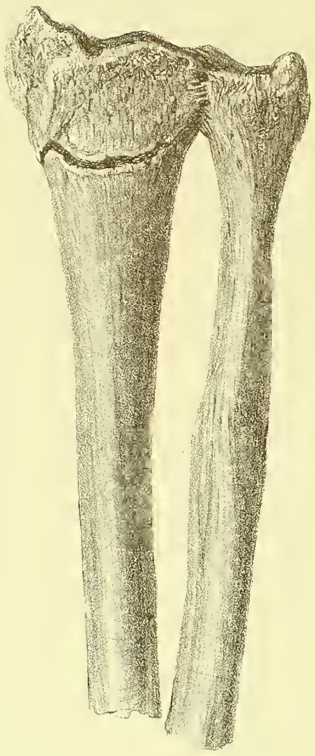


Fig. II.

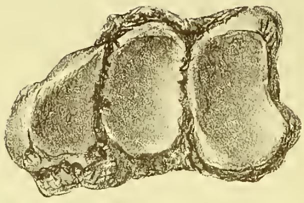


Fig. III

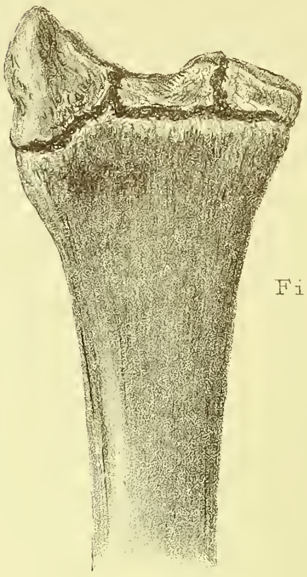


Fig. IV.

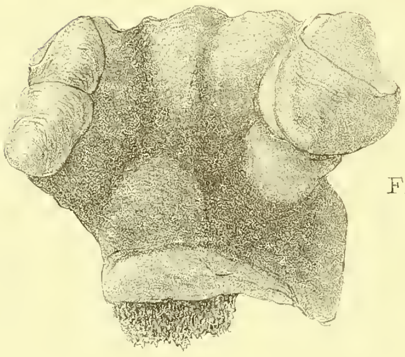


Fig. V.

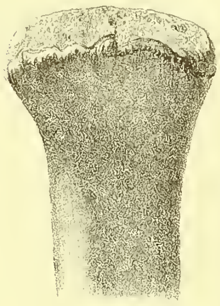


Fig. VI.

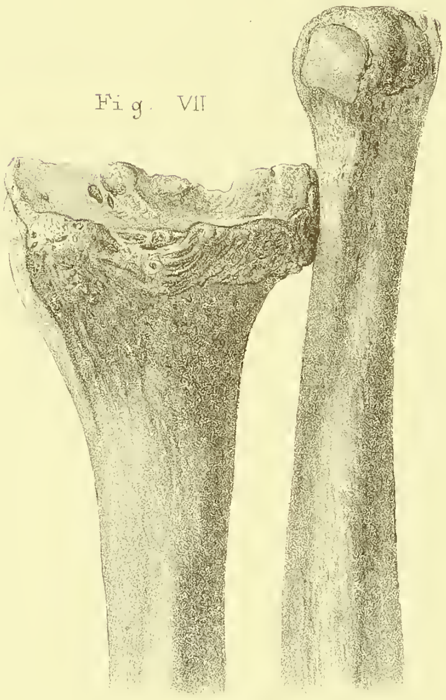


Fig. VII

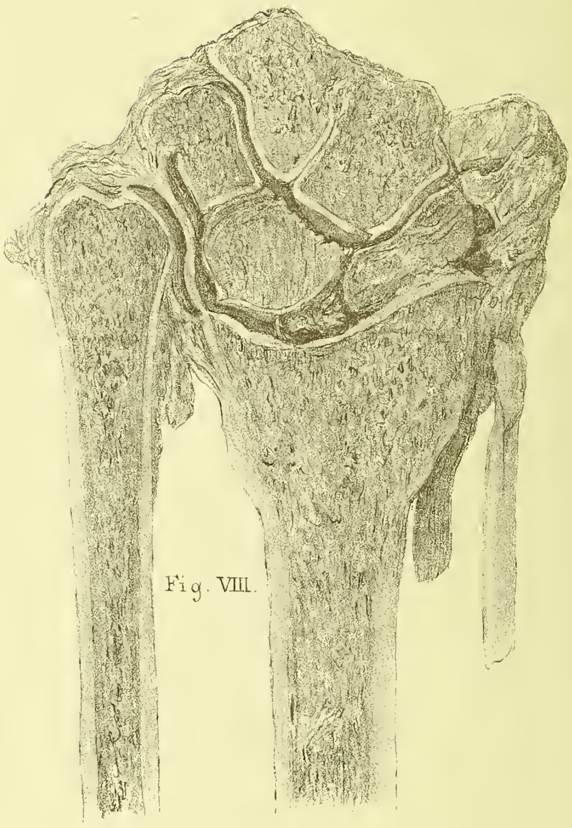


Fig. VIII.

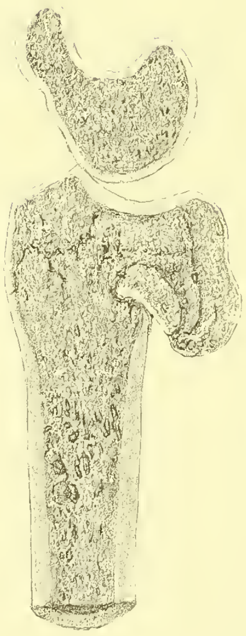


Fig. IX.

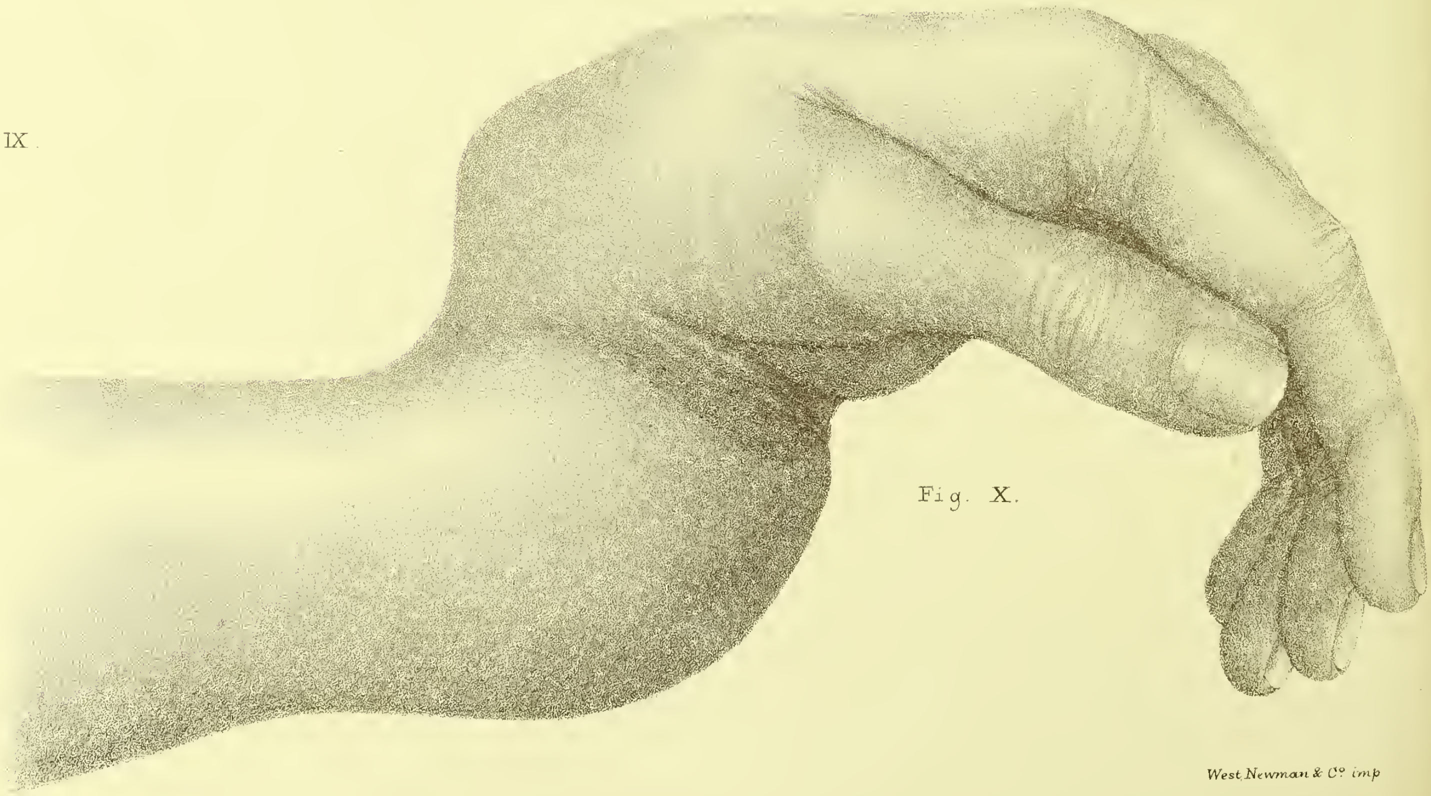


Fig. X.

lith.

West Newman & C° imp

PLATE LXXI.

INJURIES NEAR TO THE WRIST, ETC. FRACTURES AND SEPARATIONS OF EPIPHYSES.

Fig. 1 shows a detachment of the epiphysis for the great trochanter. The bone is seen from behind; the epiphysis is torn completely loose and displaced upwards, carrying with it a sleeve of periosteum. The latter membrane is extensively detached from the bone below. This detachment of the periosteum is a very common feature in all separations of ephiphyses and it constitutes a very important complication, often leading to suppuration. The patient in this case was, I believe, about ten years old, and the injury was caused by his being run over. I was indebted to my colleague, Mr. McCarthy, for the opportunity of having this bone sketched.

I have recently had an almost exactly similar specimen given me by Mr. A. Mathey, House Surgeon at the Croydon Hospital. It was obtained from a lad of thirteen, who was crushed between a railway carriage and the platform.

Figs. 2, 3, and 4 are given to illustrate the conditions met with in recent specimens of Colles's fracture and to prove that the fracture may be unattended by any displacement. I have myself dissected several specimens in which the bone was broken just as in these cases, and the symptoms of fracture easily recognised during life, whilst there was no displacement whatever. Both the bones from which these sketches were taken were lent to me by Mr. Vincent Jackson, of Wolverhampton.

In Fig. 2 we see a fracture passing almost transversely across the carpal end of the radius, about three quarters of an inch above the joint. On the ulnar side of the bone it does not tear through the periosteum, and although there might easily have been some little displacement during life, there was none whatever to be discovered on dissection.

Figs. 3 and 4 are from the same bone, Fig. 3 being the carpal surface of the radius seen *en face*.

In this instance the fracture is almost transverse and crosses the bone at its widest part at about a third of an inch from the joint. There is no displacement and can have been none during life, although the fracture is complete and the carpal fragment is split into three by vertical fissures.

It is to be remarked that in neither of these cases would treatment by splints have been of the slightest advantage. An evaporating lotion and a cushion to rest the hand on would have been the best treatment. The use of any form of retentive apparatus, especially of complicated splints, and more particularly if long persevered in, would have been likely much to interfere with the perfection of the result, leading to adhesions of the tendons and stiffening of all the parts.

I feel convinced that these drawings illustrate the more common conditions in this form of fracture, and I believe that in a majority of cases it would be wise to abstain entirely from the application of splints. They do not add to the comfort of the patient, and unless they remedy a real and definite displacement, they are worse than useless.

Figs. 5 and 6, parts of the same bone, show a clean separation of the carpal epiphysis of the radius. As usual the whole of the cartilage has gone with the epiphysis. There is no breakage of the bone, with the exception that a small part has been detached from the back of the end of the shaft and has gone with the epiphysis.

This drawing is from a specimen in the London Hospital Museum. I do not know the history of the accident. It illustrates the kind of injury which substitutes Colles's fracture almost invariably in young persons in whom the epiphysial union is not complete. I have seen many examples of it with various degrees of displacement. Often, indeed, I think usually, the lesion is simply a loosening of the epiphysis without dislocation or with but very partial displacement.

It will easily be seen that the surfaces of bone involved are large and that the violence must be very great that should cause dislocation sufficient to make the fragments ride. Now and then, however, the epiphysis is driven fairly on to the dorsal surface of the carpal end of the shaft. The deformity produced in such cases is very great It is illustrated in Fig. 10 on this plate.

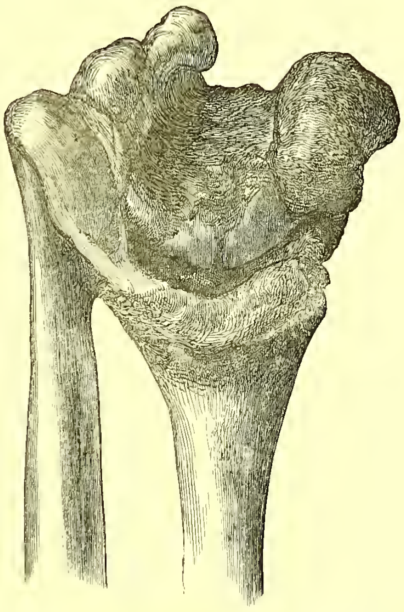
Fig. 7 shows the bones of an adult of middle age in whom an injury to the wrist had been sustained in boyhood. It will be seen that the ulna is three quarters of an inch longer than the radius, the growth of the latter having been in all probability arrested by a separation of the epiphysis.

Fig. 8 shows a similar state of things to that in Fig. 7. In it there was also a similar history. The peculiar displacement of the carpal bones and of the sacciform pouch is well seen.

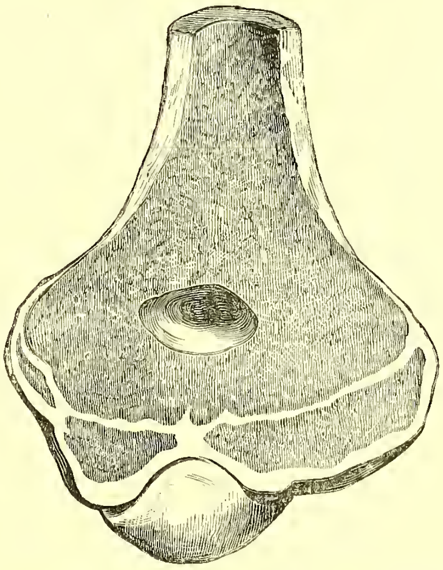
Fig. 9 is from a recent specimen of Colles's fracture. The carpal end of the bone has been crushed. There is no line of transverse fracture. A small fragment on the dorsal aspect has been completely detached and is firmly wedged backwards. It was found impossible during life to alter the condition of things, and the explanation of this is tolerably obvious in the bone. The displacement was not great.

I may remark respecting this specimen, as well as in those given above, that the use of splints could have done nothing. The impaction is such that neither pressure nor extension could have done anything to rectify the position of the fragments, whilst the tendons and soft parts would certainly have been irritated if compressed over the projecting edge of displaced bone.

Fig. 10 is from a sketch made for me by my friend, Dr. Ambrose Kibbler. The patient was a lad, aged thirteen, who was admitted into the London Hospital with a complete separation of the carpal epiphysis of the radius and a complete dislocation of it on to the back of the end of the shaft. The deformity was extreme. The styloid process of the radius could easily be felt still remaining in relation with the carpal bones. The patient was not under my own care, but I had an opportunity of examining him. I believe that it was found impracticable to effect reduction, and an abscess subsequently occurred in connection in all probability with great stripping up of the periosteum from the shaft The lad recovered but with a much injured arm.

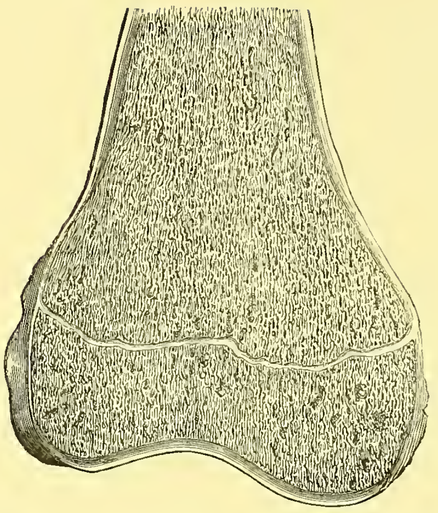


Woodcut showing shortening of the radius at its carpal end, so that the ulna projects an inch below it. It was probably consequent on a detachment of the carpal epiphysis in early boyhood. There was a history of injury.

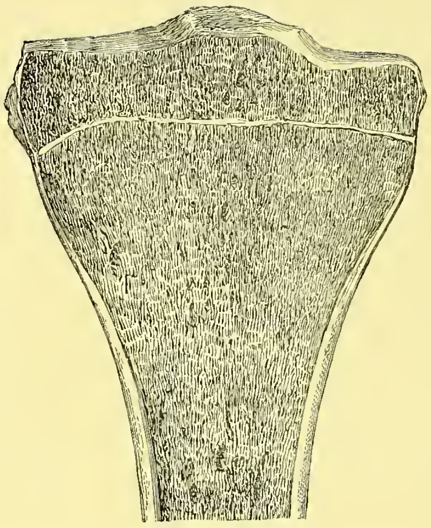


Woodcut to show the lines of the epiphyses in the lower end of the (humerus seen from behind). Aged 14.

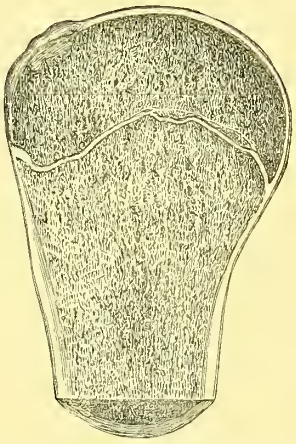
PLATE LXXI.



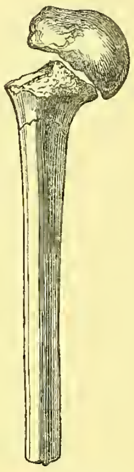
Woodcut showing normal line of epiphysis in lower end of femur.



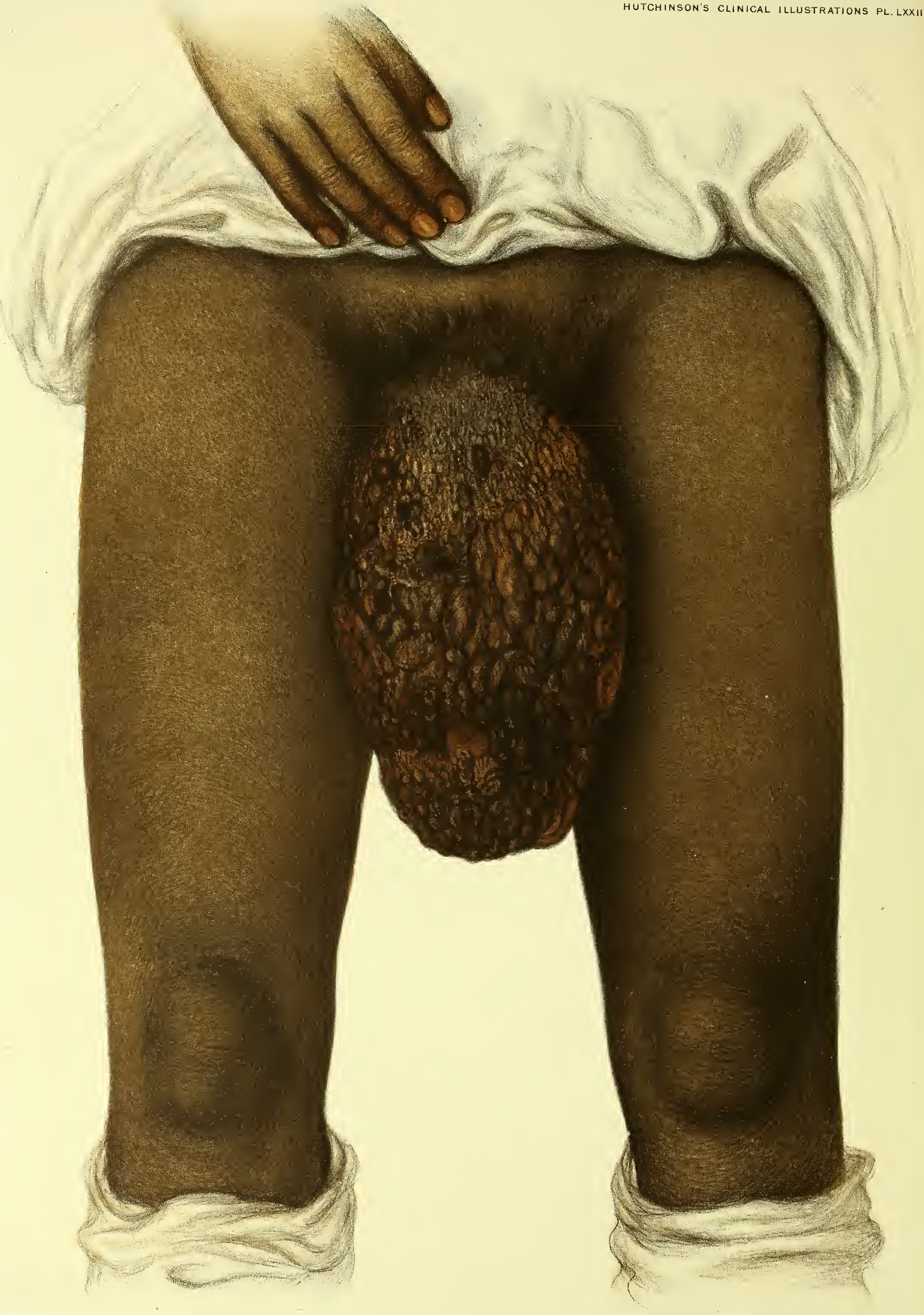
Woodcut to show the line of epiphysis in upper end of tibia. From the same subject as the preceding one. Aged 16.



Woodcut to show the line of the epiphysis in the upper end of humerus just before obliteration. Aged 16.



Woodcut to show the position frequently assumed by the fragments in cases of complete detachment and displacement of the upper epiphysis of the humerus. The epiphysis lifted by the rotator muscles is displaced so as to look somewhat outwards.



E. Burgess del. et lith.

ELEPHANTIASIS OF PREPUCE &c.

West Newman & Co. lith.

PLATE LXXII.

ELEPHANTIASIS OF PREPUCE.

This portrait,—which might at first glance be taken for a case of elephantiasis of the scrotum, since the tumour reaches almost to the patient's knees,—represents a condition of disease of the prepuce and skin of the penis only. The patient was a negro who was under my care in the London Hospital. We demonstrated the presence of filaria in the blood of the part after the operation (for the first time, I believe, in England). I excised the whole of the affected integument, skinning the greater part of the penis, and a good recovery resulted.

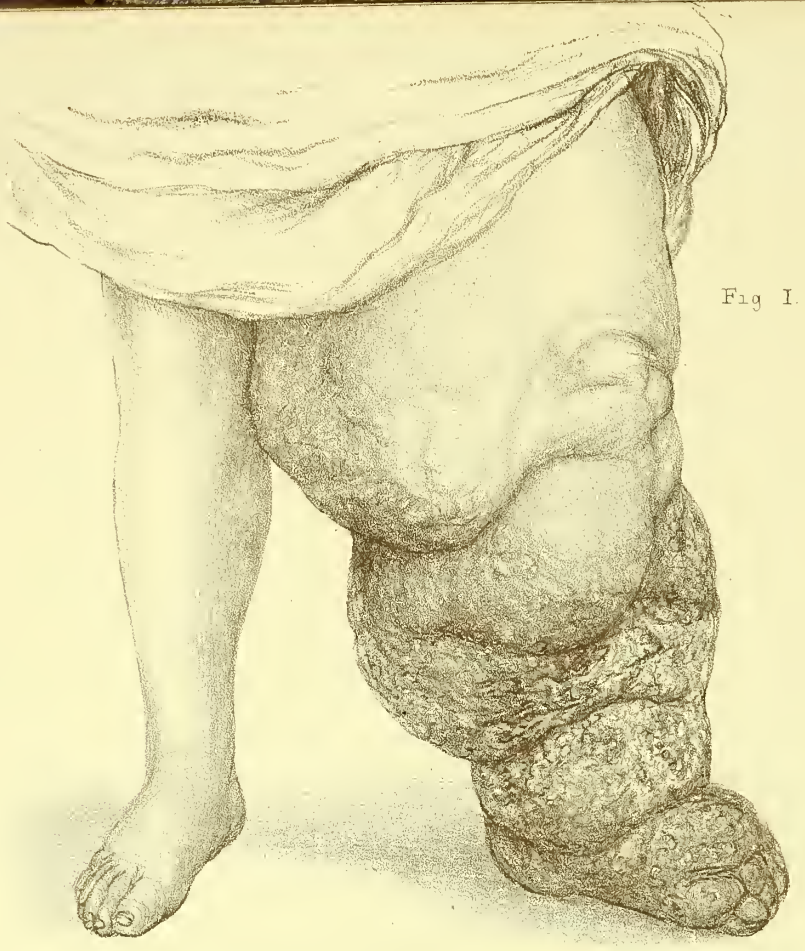


Fig. I.

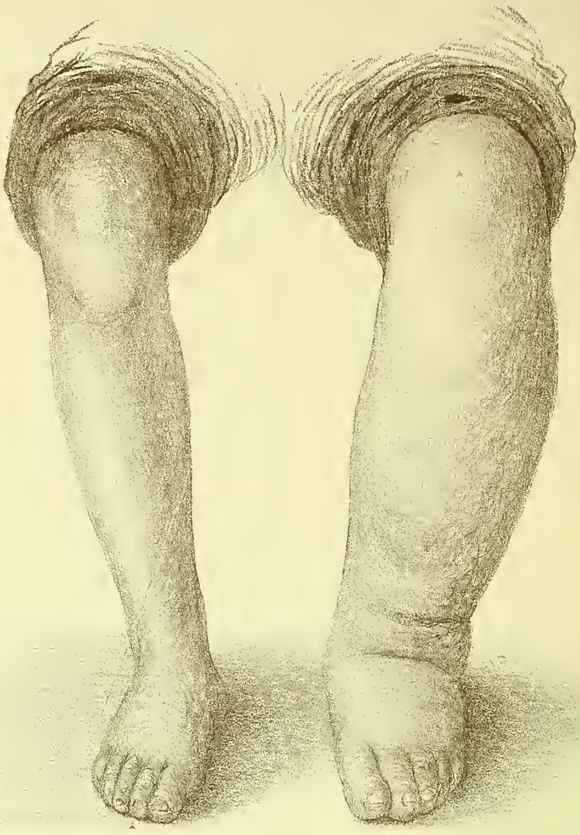


Fig. II.

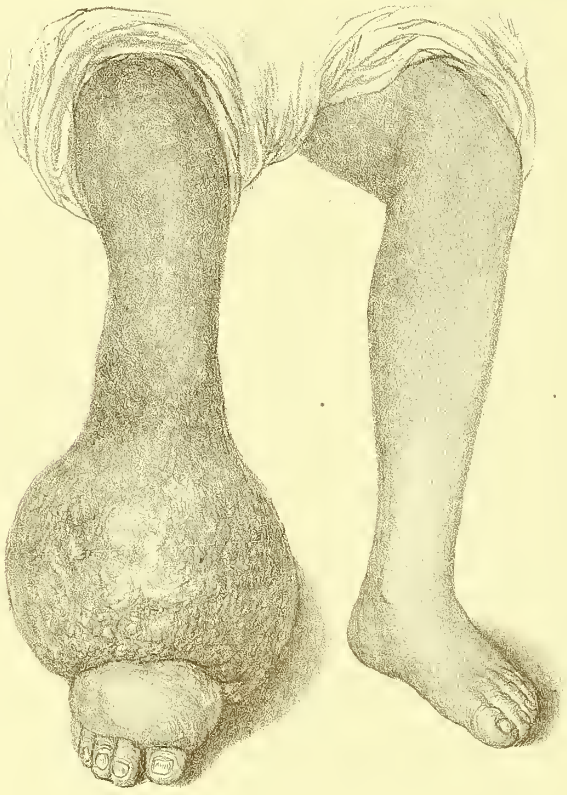


Fig. III.

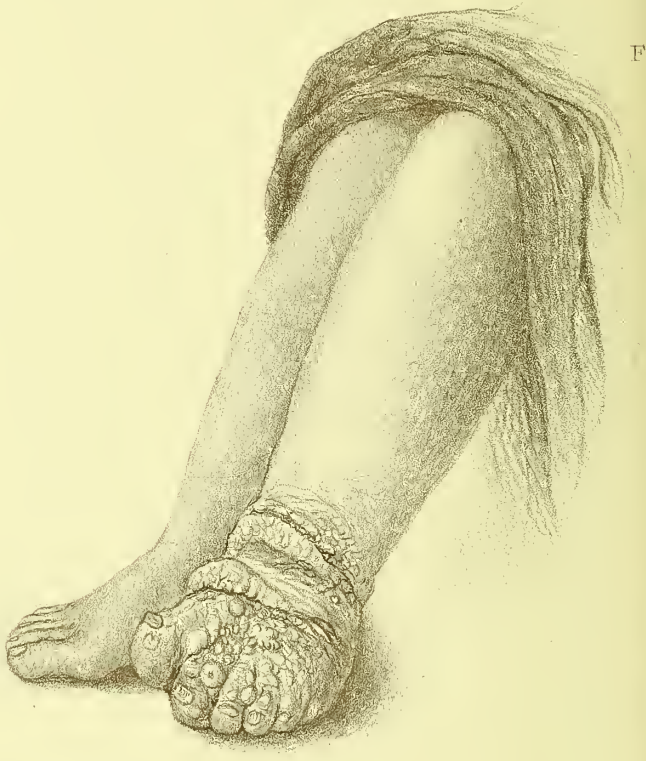


Fig. IV

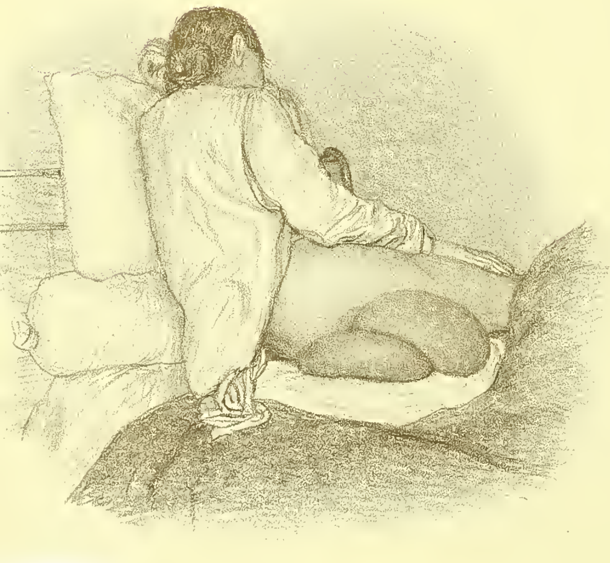


Fig. V.

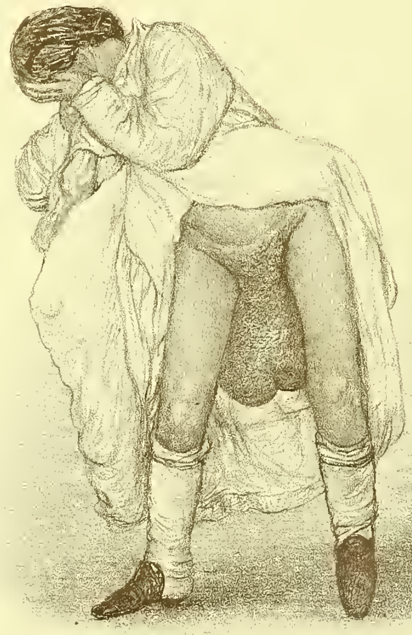


Fig. VI.

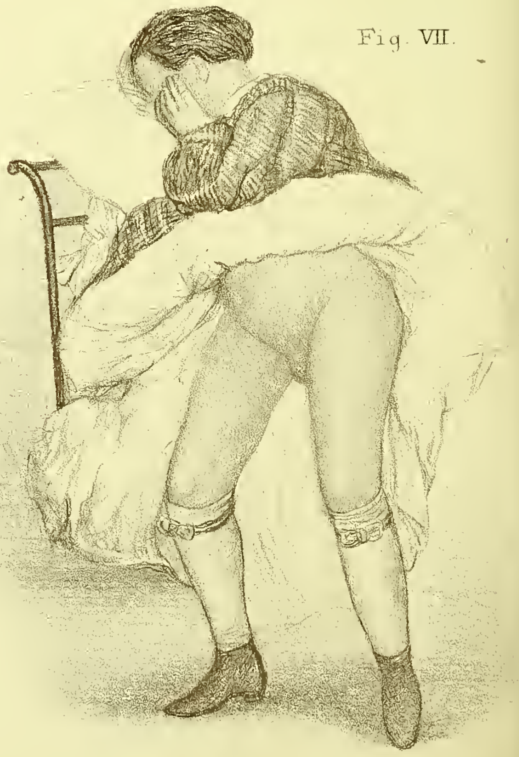


Fig. VII.

West Newman & C° imp

PLATE LXXIII.

VARIOUS CASES OF ELEPHANTIASIS.

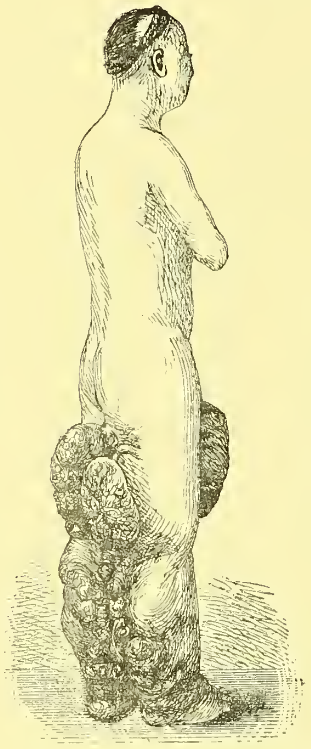
Fig. 1 represents the left leg of enormous size with huge pendulous folds of hypertrophied skin and subcutaneous cellular tissue. It is partly a condition of overgrowth, and partly of solid œdema. The condition extended as high as the patient's hip, and the contrast between the two extremities is most remarkable.

In Fig. 2 we have the same condition as the preceding, but in an earlier stage of development. The left limb from the toes to the knee is in a state of solid œdema with hypertrophy of skin. The foot is not enlarged in proportion to the leg, probably owing to the support given it by the boot. It will be seen that on the toes, and also on the outer part of the leg, there is a tendency to the development of little tubercles in the skin. The patient in this case was a man of about forty, who was repeatedly under my care in the London Hospital. He used to come in for a few weeks of rest, and, with careful bandaging and attention to position, my dressers would generally succeed in reducing the leg almost to the size of its fellow. But when he left the hospital and went about, although he was enjoined to continue the use of the bandage, he always relapsed. The disease had begun, I believe, in a mild attack of erysipelas many years ago, and he was liable to slight recurrences. In other respects he was in good health.

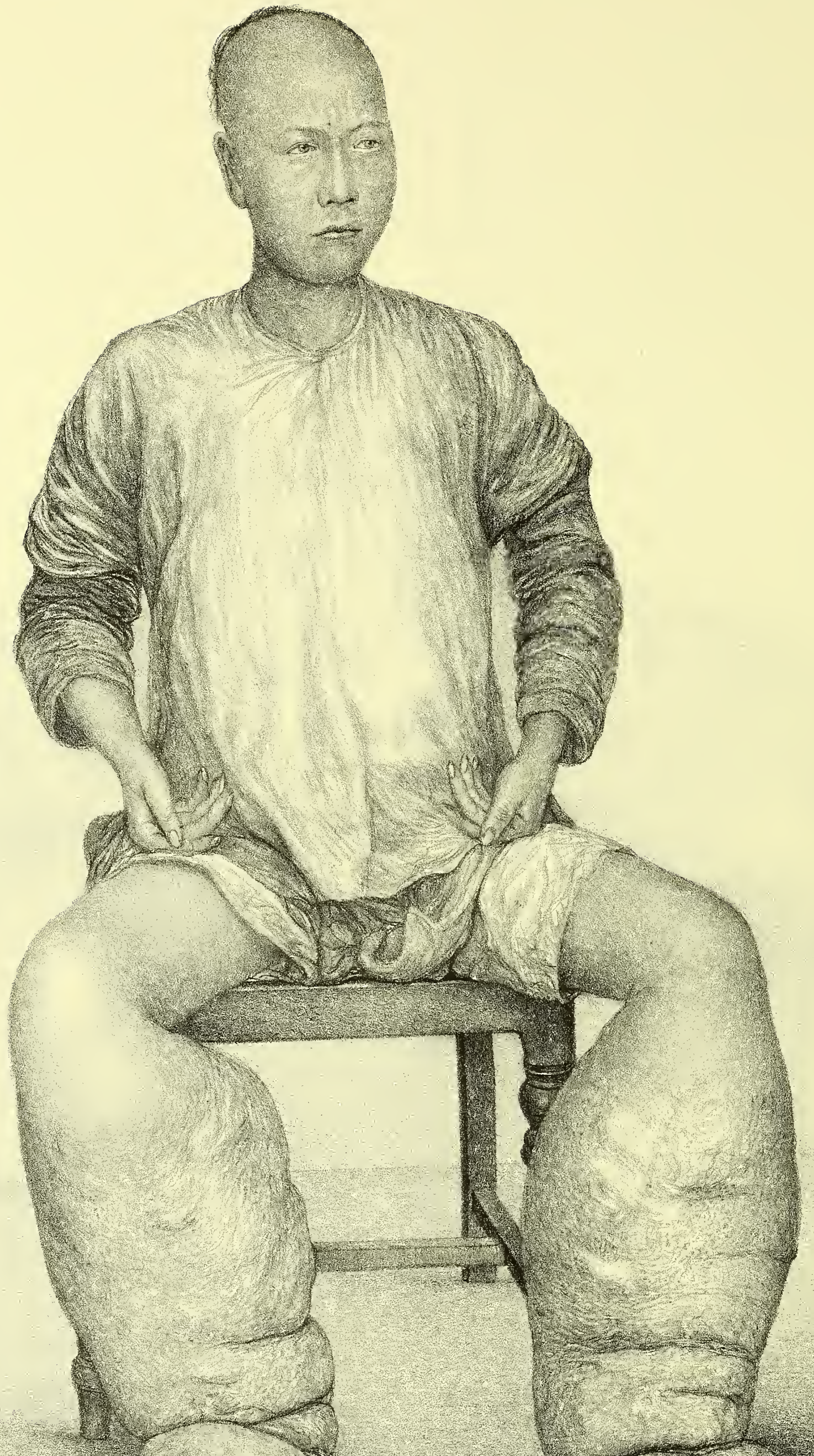
Fig. 3 shows a somewhat exceptional condition of elephantoid hypertrophy in a young Creole woman. The foot and leg up to the knee are involved, but the exceptional feature is the local development of a huge rounded mass about the ankle.

Fig. 4, the legs of a young Irishwoman, showing the left much hypertrophied by elephantiasis. On the toes and foot the disease takes the tuberculated form, but the leg is in a condition of smooth œdema. The disease is in a more advanced form than in Fig. 2. Otherwise the two cases were very similar in all respects.

Figs. 5, 6, and 7 show elephantoid hypertrophy of the labia, and the result after a successful operation. The photographs from which these figures were taken were given to me by Dr. May, of Seville, who was, I believe, the operator. I once operated myself on a very similar case and almost as well developed. In my case, and probably in Dr. May's, the beginning had been an attack of gonorrhœa with œdematous swelling of the part, followed by recurrent attacks of erysipelatoid swelling.



This Woodcut shows a peculiar condition in elephantiasis in which large outgrowths have formed on the backs of the thighs and legs. The scrotum also is affected. The feet and lowest part of legs are in the more ordinary condition of elephantiasis. From a photograph of a Chinaman, given me by a medical friend.



E. Burgess del et lith.

West Newman & Co imp.

PLATE LXXIV.

ELEPHANTIASIS OF BOTH LEGS.

This plate shows the legs of a Chinaman, both of which are affected by elephantoid hypertrophy. The thickened and indurated skin hangs in huge bossy folds. The photograph from which the plate is taken was given me by Dr. Harvey.

SOME GENERAL REMARKS ON ELEPHANTIASIS.

It is not difficult to understand the nature of elephantiasis if we begin with the study of early cases. It is only in its advanced and exaggerated forms that the disease assumes the grotesque and extraordinary features which are depicted in the illustrations which I have given, and in those contained in other surgical works, and it is only these exaggerated forms which have seemed to require the extraordinary names which have in such great variety been given it. I do not believe that there is any real distinction between the elephantiasis of the tropics and that which occurs in Britain. We have also just the same variety in the disease at home as abroad. A difference in the degree of frequency is, so far as I can see, the only one which can be traced. There can be no doubt that an unhealthy climate, the exposure to a hot, moist atmosphere, and other influences which impair the general tone of the system, have a very important influence in favouring the development of elephantoid conditions. It is probable, also, that the presence of the *Filaria sanguinis hominis* takes its share in aggravating the disease, but abundant clinical facts make it quite impossible to believe that this parasite is the sole cause of the disease, or of any peculiar form of it.

Attacks of inflammatory œdema, repeatedly recurring, are the almost constant precursors and causes of elephantiasis. The type of inflammation, its production of œdema of the skin and subcutaneous cellular tissue, due no doubt to its implication of lymphatic spaces, allies it so closely and definitely with erysipelas, that we might almost venture to speak of elephantoid conditions as the results of recurrent erysipelatoid inflammation. There are, however, a few cases which must make us pause before venturing such a definition, since in them it is impossible to prove the recurrence of anything approaching to erysipelas. The disease which sometimes affects the face, and produces a slight form of elephantoid hypertrophy of the lower eyelids and cheeks, is a good example of what I have suggested, for in it the invariable antecedents are a peculiar and varied form of erysipelas of the face.

I used in former years to be able, in the wards of the London Hospital, to demonstrate the early stages of elephantiasis in several remarkably good cases. We were able to admit year after year the same patients with recurrent attacks of inflammation, and increase of the œdema—hypertrophy. Rest in bed, cooling lotions, and bandages, always sufficed to nearly remove the morbid conditions; but these were never absolutely cured, and when the patient returned home a relapse sooner or later was sure to occur.

Œdema and hypertrophy are the two conditions which constitute elephantiasis in all its varieties, but they are mixed in very different proportions in different cases. In some, as in the variety which is known as smooth, there is little or no hypertrophic growth of the papillary layers of the skin, whilst in those which have been called tubercular this hypertrophy is very noticeable. The hypertrophy is second to the œdema, and it may involve all the structures of the part, that is, all the different elements of the skin, the subcutaneous cellular tissue, the fasciæ, and even the bones. Our museums contain many specimens of leg-bones roughened over by irregular outgrowths, which have been obtained from legs affected by elephantiasis. As favouring the production of elephantoid conditions, it is almost essential that the part affected should be pendulous, or as in the case of the lower extremity, at a hydrostatic disadvantage in reference to its circulation. Thus elephantiasis of the trunk and in the upper limbs is almost unknown. Its favourite positions are the feet and the genitals, whilst more rarely it may affect the face, the buttocks, or any pendulous fold of skin, as, for instance, a molluscum fibrosum. When attacking the lower extremity, it is very often on one side only, a fact which points clearly to the inference that it is of local origin. Of the cases which I have just mentioned as illustrating its early forms, the patient in one was a Jew girl, of about twelve years of age, in whom one foot was liable to attacks of swelling which began about the toes. On careful inspection the skin over the affected toes was seen to be already somewhat coarse and papillary. The amount of hypertrophy, however, was not such but that the child could, when the œdema was absent, wear the same sized boot that she did on the other foot. It would have seemed absurd to use such a name as elephantiasis in application to so slight a case, but there could be no doubt that we had before us the beginning of this formidable disease. The girl used to return to us every six months or so with a fresh inflammation of her foot, and on each occasion we had to note that the papillary hypertrophy of the skin was steadily on the increase. I have lost sight of the girl now for some years, and quite expect that she has by this time become the object of a much more conspicuous form of the malady. It is one of those diseases which having once been set going, tends slowly and surely to increase. Another of the cases to which I have referred was that of a man, aged about forty, in whom the whole of one leg below the knee used to swell. His condition differed from that of the girl in that the skin was perfectly smooth, but very possibly this difference was only a question of time, for in him also, in spite of the systematic use of bandages, the condition of solid œdema became more and more intractable.

To judge from my own experience, I should have supposed elephantiasis, not only in its slighter, but also in its more severe forms, to be much more common in English practice than our systematic works would lead us to suppose. In England, reversing what is the rule in hot countries, women more frequently suffer than men; and I have known at least half a dozen women who were permanently bedridden by the enormous size of one leg. In English practice we never see, excepting in imported cases, severe forms of elephantiasis affecting the male genitals. It may, perhaps, be that it is especially in this class of cases that the Filaria is efficient in causing aggravation of the malady. I have had occasion to operate, however, for elephantoid hypertrophy of very considerable proportions of the genitals of both sexes, in patients who had never been out of England. We might perhaps divide elephantiasis into two groups, one by very far the larger, in which the starting-point of the disease is a local inflammation, and the other in which some obstruction to the return of blood or lymph or both, exists above the part affected. In the latter group, which is quite a small one, the whole limb is usually more or less affected from the beginning of the case, whilst in the former the œdema and hypertrophy begin peripherally, and only very gradually spread upwards.

In a lecture published in the 'Lancet' August 26th, 1876, I have recorded some examples of persisting solid œdema of one lower extremity only, and have traced their connection with elephantiasis, of which indeed they constitute a variety. In several of these cases, although it seemed probable that there was some pelvic obstruction to the lymphatic circulation, there was, as in the case of elephantiasis, a history of recurrent attacks of inflammation. The indications for the treatment of elephantiasis, as based upon the views of its origin as suggested, are tolerably obvious. The patient's health must be generally improved by the continued use of quinine and steel, in combination with aperients, and the greatest possible attention must be given by the use of elastic stockings, Martin's, or other bandages, to the prevention of œdema. When the recurrent erysipelatoid attacks occur the patient must go to bed and use vigorously an evaporating lead lotion. The effect of sustained pressure in preventing elephantoid hypertrophy is every now and then illustrated by the almost entire exemption of the foot, whilst the leg is greatly swollen; the œdema ending exactly where the top of the boot begins. This condition was well illustrated in the case of a young lady, who was under my care some many years ago, and in whom also the influence of the general health upon the malady was well shown. Her usual place of residence was Plymouth. In the damp, relaxing air of this locality, the swelling of her leg always tended to increase, but when she went to stay in Scotland she would get almost rid of it.

Fig. I

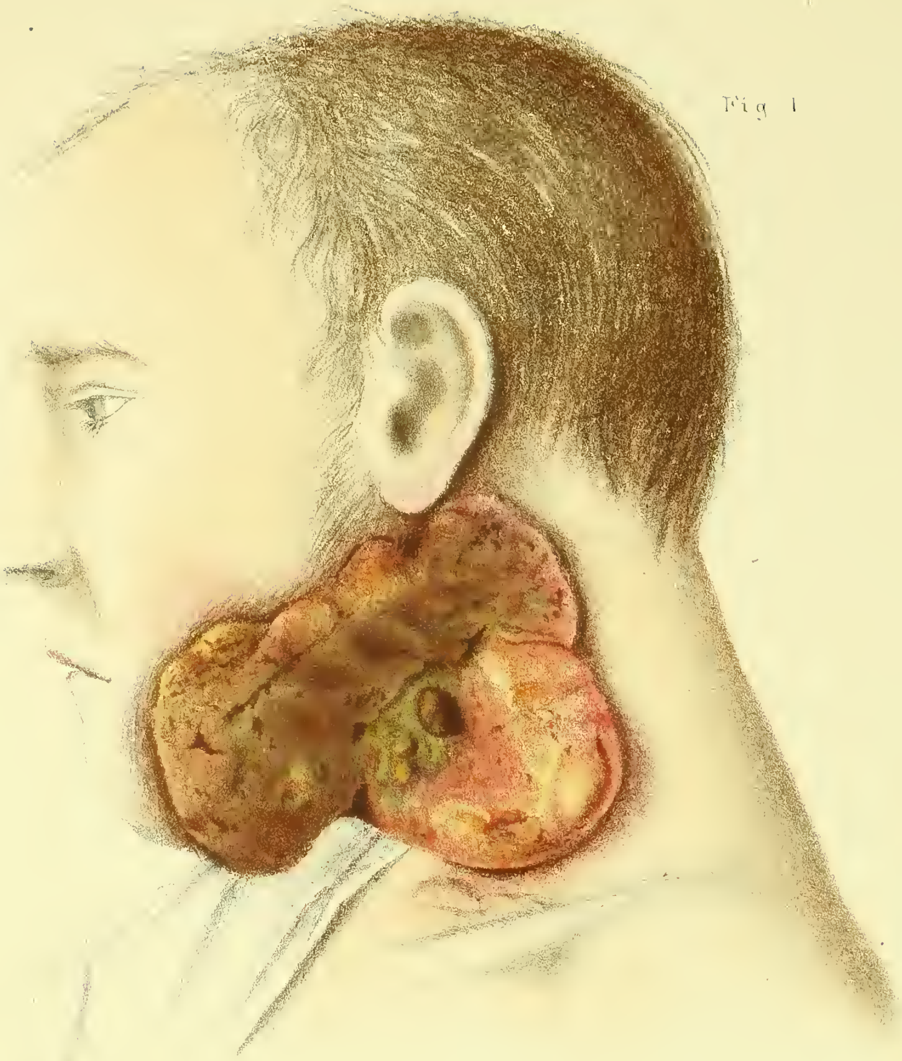


Fig. II

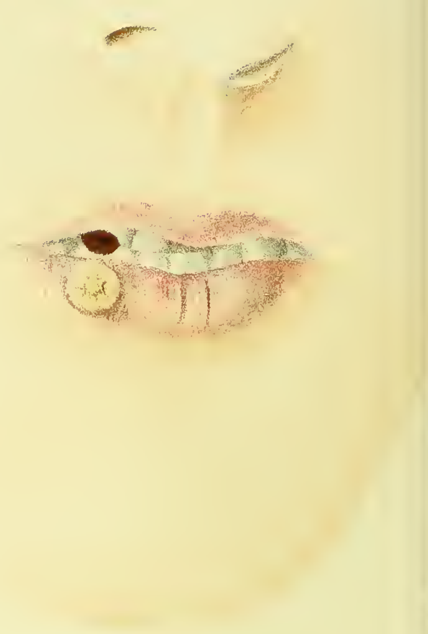
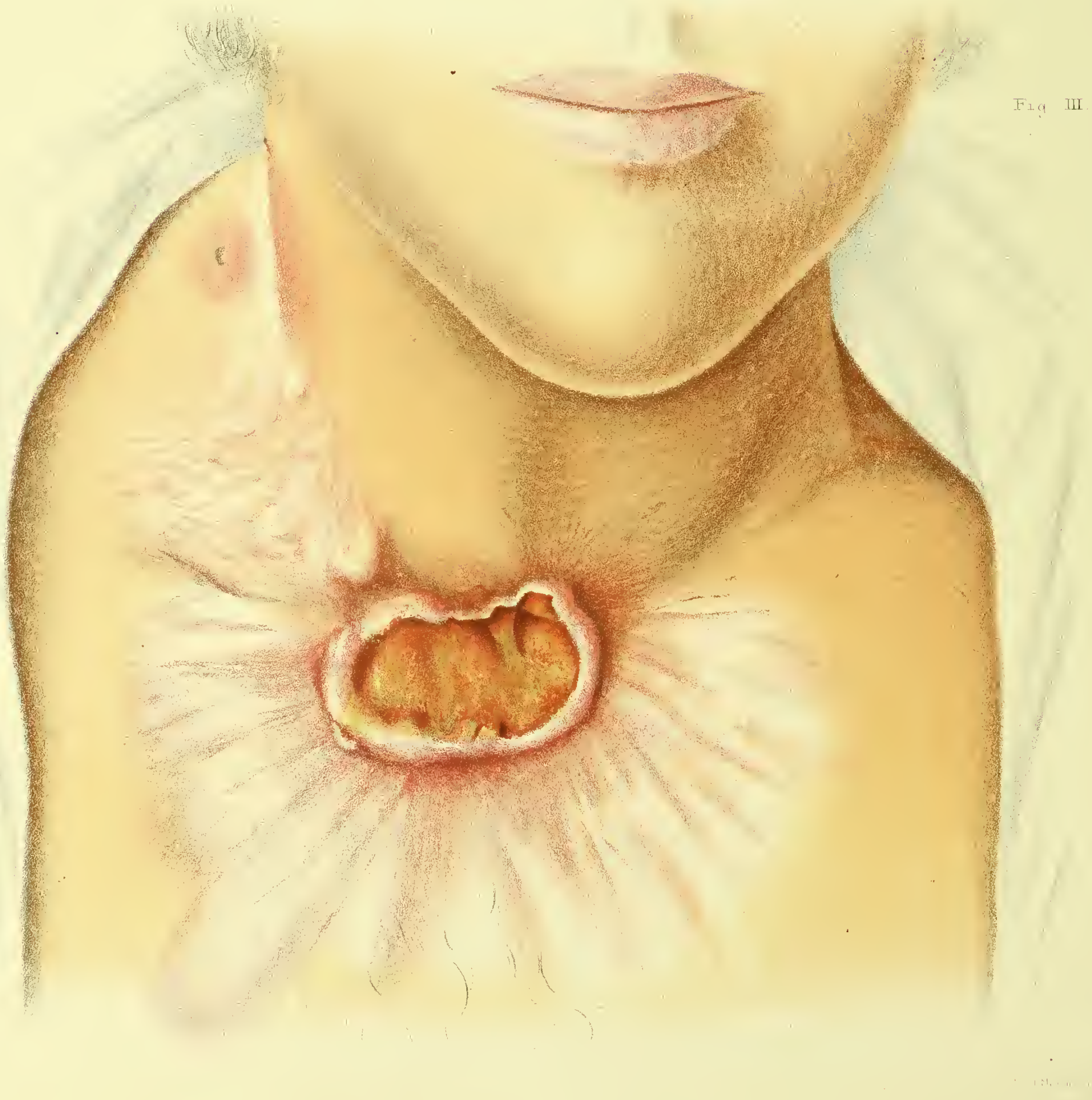


Fig. III



D. Burgess del. [illegible]

PLATE LXXV.

VARIOUS FORMS OF EPITHELIAL CANCER.

The Pre-cancerous Stage.

Fig. 1 is a good illustration of the late stage of ulceration of a gland mass secondary to cancer of the lip. Part of the lower lip had been excised for epithelial cancer about a year before the sketch was taken. The glands first affected from cancer of the lower lip are, usually, a group of three or four placed between the body of the jaw and the anterior belly of the digastric. These glands, when once implicated, enlarge rapidly, and in my experience often suppurate. A large abscess, containing thin pus and curdy débris, forms, and after it has given way a fungating mass springs up from its base. This condition of things extending we have the condition produced which is shown in the plate. Not unfrequently, in the last stage of all, an opening through into the floor of the mouth is formed. Death is brought about by exhaustion from discharge and suffering, or occasionally by sudden hæmorrhage. The patient's condition during the last two or three months of his disease is one of extremest misery.

Fig. 2 shows, the pre-cancerous stage of cancer,—the earliest stage of a disease of which Fig. 1 is the latest. Here we have a little papillary growth developed on the prolabium from the irritation of the pipe. The growth is scarcely bigger than a large pea, and there is as yet no infiltration into the adjacent parts of the lip. Exactly above it is seen the hole in the teeth worn by the pipe, the irritation of which latter has caused the growth. It is in this stage that cancer of the lip may be permanently cured by an operation. If the disease be left later and until its characters as cancer are well developed there is great danger that the lymphatics may be implicated, and then, however free the excision, and however complete the cure of the local disease, there is great risk that the state of things shown in Fig. 1 may be the patient's final fate.

No better illustrations than these two portraits could possibly be given in proof of the local origin of cancer, and of the paramount importance of prompt operative treatment.

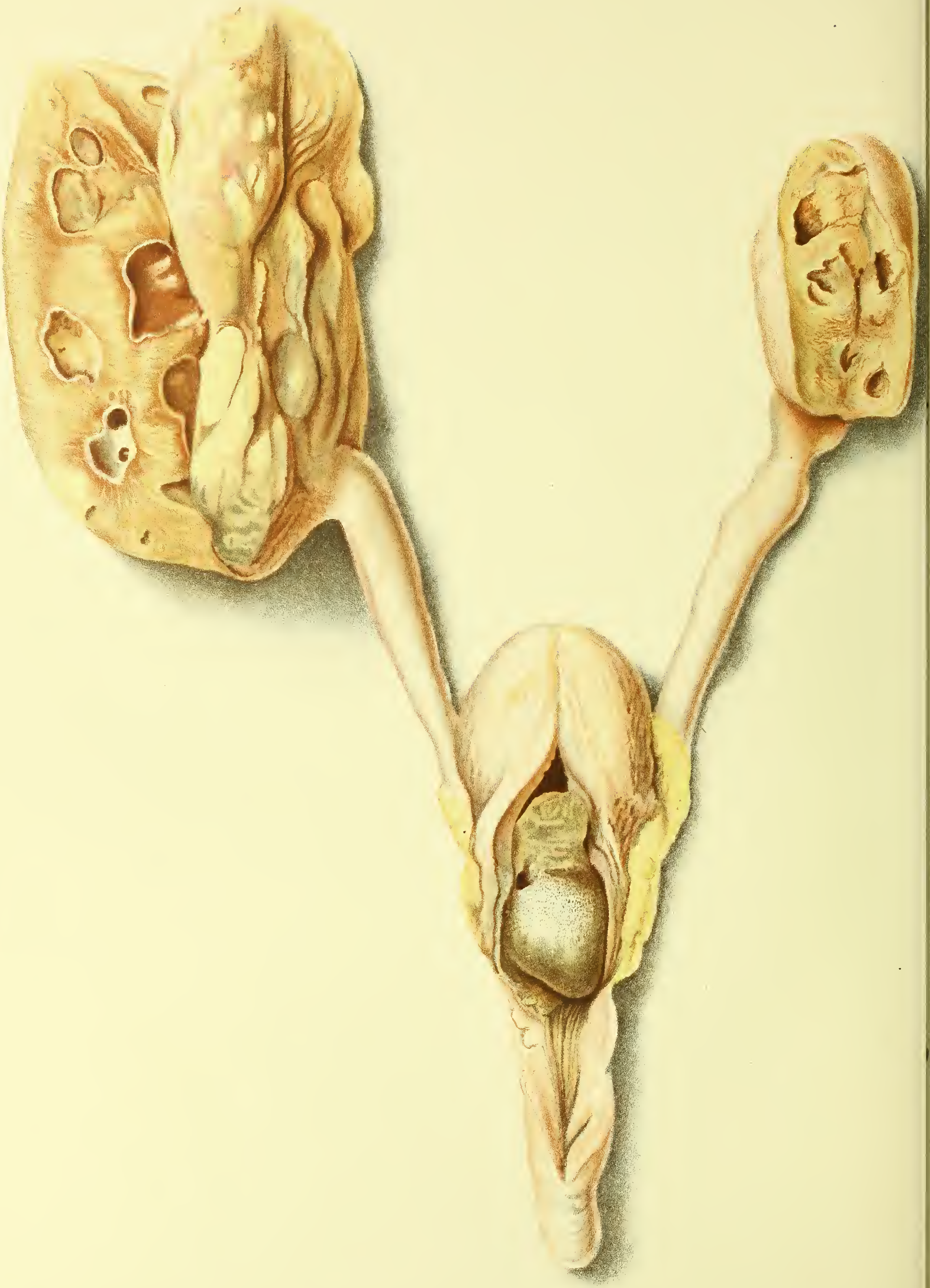
As regards the excision of the lymphatic glands after they have enlarged in cases of cancer of the lip, it ought always to be done if they have not become adherent to the cellular tissue, but it is done with but little hope of a permanent cure. I have often performed operations of this kind and, usually, with temporary gain. Some patients have been lost sight of, but I do not know that I could quote a single case, from my own experience, of which I know for certain that the disease did not return. I am acquainted, however, with one, the subject of which was a medical friend who has recently died at the age of eighty. Part of his lip had been excised for epithelial cancer by Sir William Lawrence, and subsequently enlarged glands, under the jaw, had been taken away. He lived more than twenty years after these operations and had no return of the disease.

In any case of cancer of the lip in which the glands under the jaw were sufficiently enlarged to permit of their being felt I should certainly remove them at once. It would be wise under such circumstances to disregard all questions as to the precise nature of their enlargement, whether malignant or only inflammatory, and take advantage of the opportunity to get rid of them.

Fig. 3 is given to illustrate the peculiarities of malignant action when it attacks scar tissue. The patient was an Irishman under the care of my colleague the late Mr. John Adams, to whose kindness I was indebted for permission to have the sketch made. The man had been burnt on the chest and neck some years before, and quite recently an ulcer had developed in the upper part of this scar which had manifested malignant characters.

We owe, I believe, to Mr. Cæsar Hawkins the first observation of the fact that when cancer attacks scar-tissue it runs a peculiar clinical course, and very rarely causes glandular enlargements. In this we have but an illustration of the general law that malignant action acquires peculiarities in connection with the tissue in which it originates. My own experience of cancer beginning in scar would quite support Mr. Hawkins's statements that it usually remains a local disease. Sometimes it spreads very rapidly, and in others it is slow. In the present instance it will be seen that the ulcer is unattended by any warty growth, that its surface is quite clean, and that its edge consists of a roll of induration exactly like that which we see in rodent ulcer. I am unable in the present case either to give the final result or to say anything as to the microscopic appearances, for I lost sight of the patient soon after the sketch was made. From the examination of other specimens of cancer of cicatrix I can state, however, that they usually present the ordinary appearances of epithelial cancer, though often much modified.

Cancer of scar not unfrequently occurs in the scars left by lupus, and when it does so it assumes somewhat peculiar features. It is also not unfrequently seen in those of syphilitic ulceration. A very peculiar form of it is met with in young persons, or even in children, as a part of what is known as Kaposi's Disease.



E. Burgess del

West Newman & Co chromo lith

PLATE LXXVI.

SURGICAL KIDNEY FROM STONE IN THE BLADDER.

In this plate we have a graphic illustration of the way in which death is brought about by obstructive disease in the bladder. The bladder is seen to be hypertrophied and contracted. The ureters are dilated to the size of the little finger, and in the kidneys are numerous abscesses. The left kidney, which has evidently been the first affected, is much contracted as the result of bygone suppuration. The right organ, which had probably taken on compensatory hypertrophy, has subsequently suffered in a similar manner. Its pelvis is much dilated and its cortex riddled with abscess-cavities. The cause of the obstruction is a calculus, the conical end of which is wedged in the prostatic urethra. The patient was a little boy, æt. 5, the son of a soldier stationed at Gibraltar. Symptoms of stone had been present almost from infancy. When finally he was brought to England for treatment it was too late. He was admitted, under my care, into the London Hospital only a few days before he died, and was too ill to permit of any operation being performed.

The peculiar position occupied by the calculus is no doubt the explanation of the somewhat exceptional secondary conditions which it induced. So long as a calculus is free in the bladder and does not block the orifice there is but little danger to the kidneys.

This portrait may be used as a good illustration of an occasional cause of death after lithotomy. Had the operation been performed any time during the last two or three months of the child's life, it is but too probable that it would have been followed by death.

There is in the Museum of the College of Surgeons a specimen showing a very similar condition of things.

Fig. I.

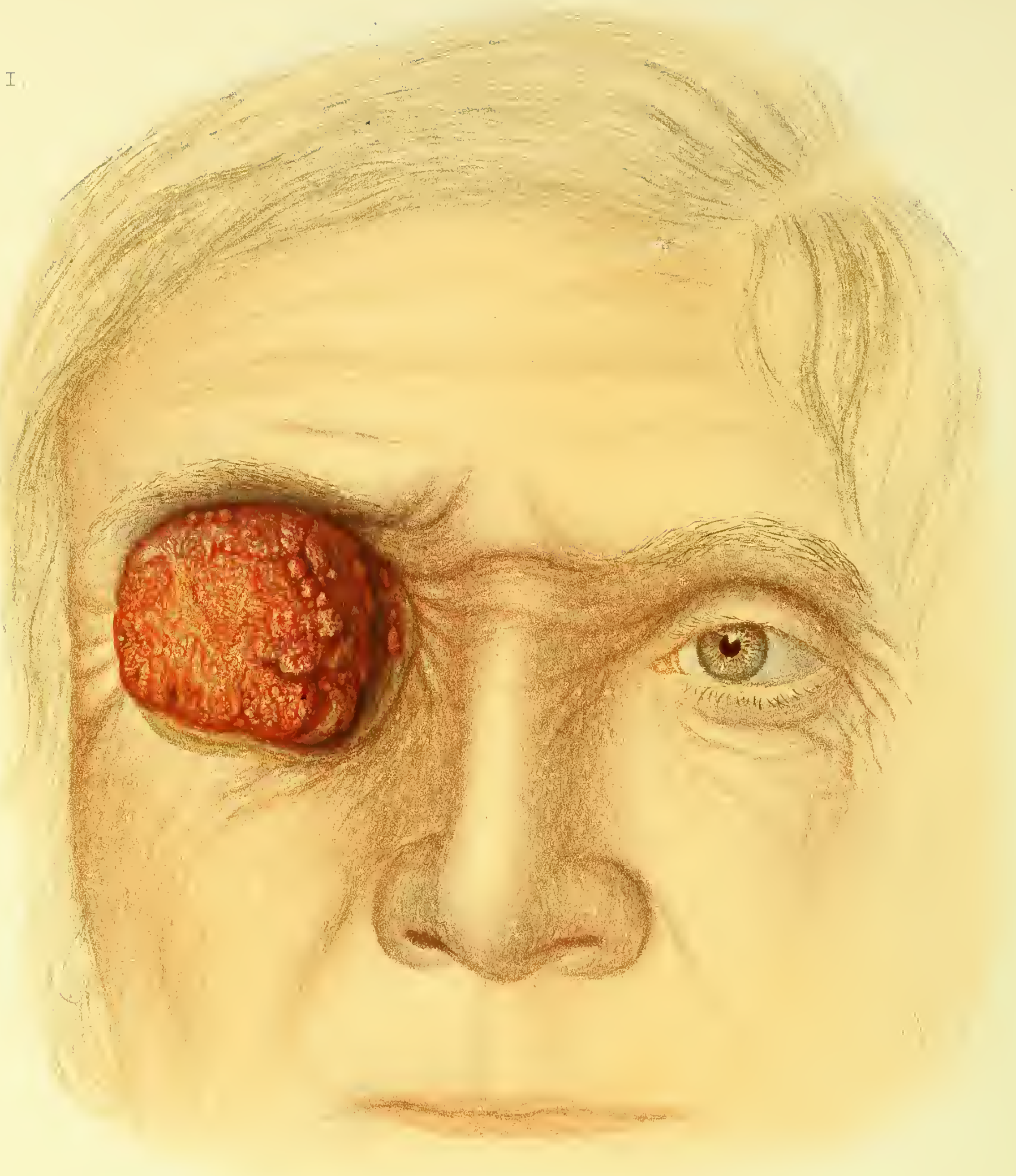


Fig. II.

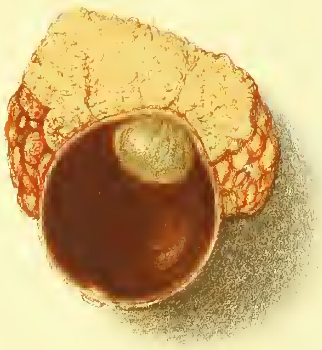
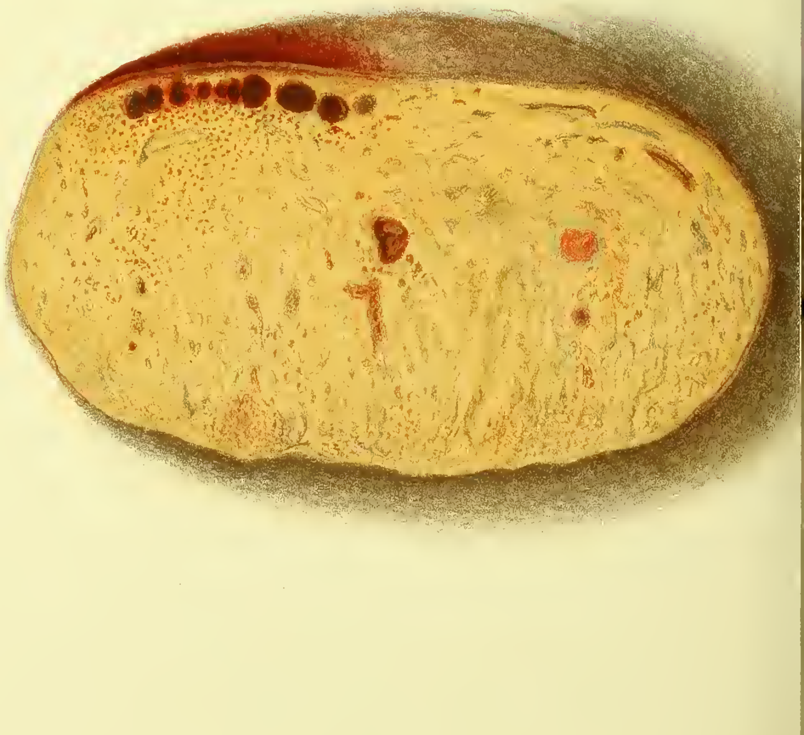


Fig. III.



E. Burgess del et chr. lith.

EPITHELIAL CANCER OF CONJUNCTIVA.
TUMOUR FROM LEG.

West, Newman & Co chr. imp.

PLATE LXXVII.

EPITHELIAL CANCER UPON THE CORNEA, ETC.

The subject of Fig. 1 was an old man named Daniel Taylor, æt. 67, who was in the London Hospital in March, 1878.

As the portrait shows, a large mass bulged between the eyelids, which presented a firm mammillated surface which was florid and quite clean. On examination it was found it did not involve the lids at all but grew from the front surface of the eye itself. The eyeball was movable. The tumour had been growing for about eighteen months and had occasioned but little pain. There was no gland disease. I excised the eyeball, together with the growth, taking the conjunctiva away very freely. The parts healed well, and I have no information as to any recurrence of disease having taken place.

Fig. 2 shows a section of the eyeball with the growth in front of it.

It will be seen that the aqueous has escaped and that the opaque lens is in contact with the cornea. With this exception the eyeball is not involved in disease.

The growth springs from the whole of the corneal surface and from the adjacent parts of the sclerotic, to which it firmly adheres. These parts, however, are not disorganized by it, with the exception that the cornea has become opaque. They are easily traced in the section. The tumour itself presented the usual appearances of epithelial cancer.

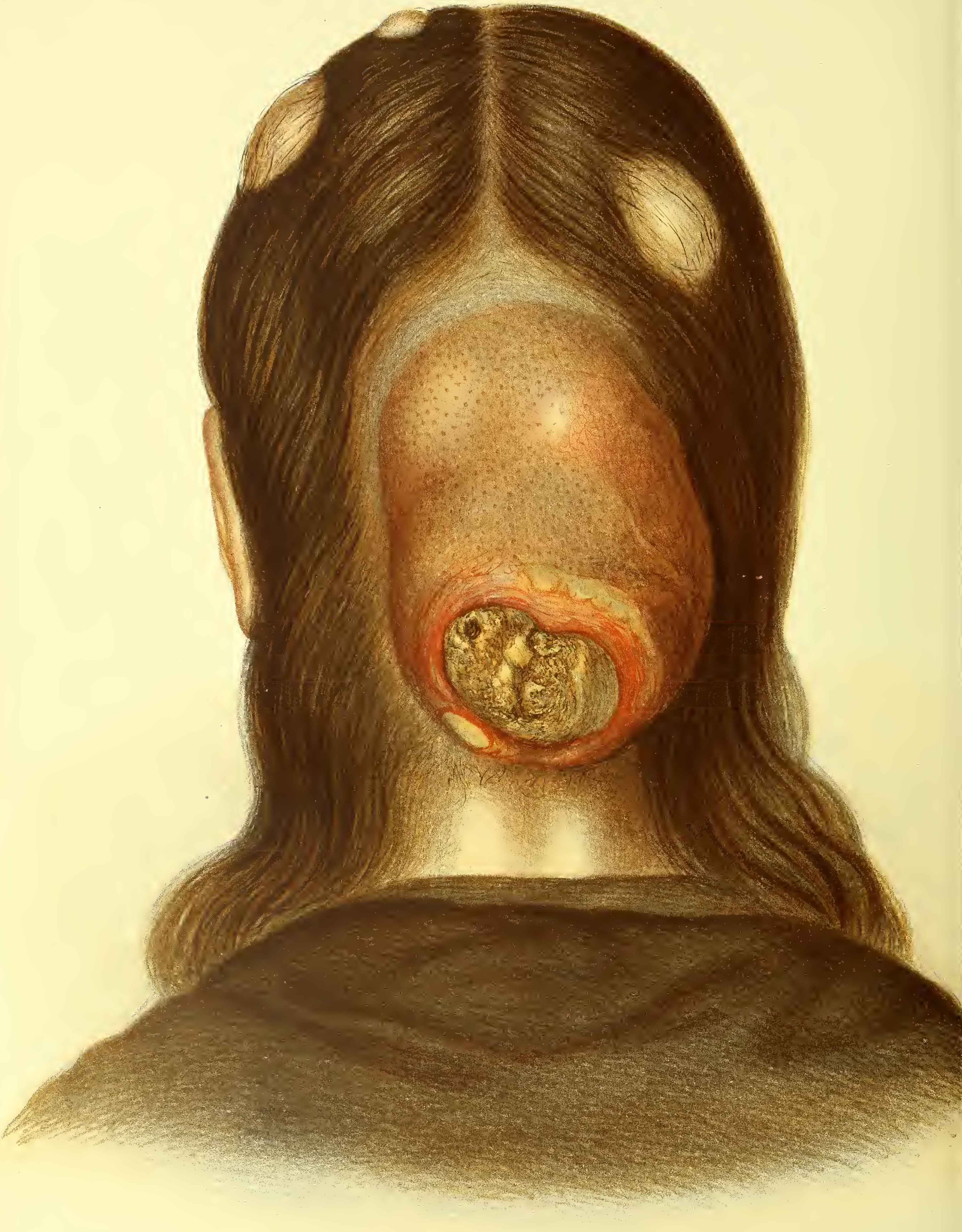
Fig. 3. The tumour of which the section is shown was excised from the front of the leg of an elderly woman. It was a prominent flabby mass, so prominent that it was almost pedunculated. It was beginning to ulcerate over its most prominent part, but it appeared to be merely from abrasion, and there was not the slightest tendency to fungate. There were varices just above it and in the excision several large veins which passed into the mass were divided. It adhered but loosely to the deep fascia and was easily removed. The wound healed well.

The appearances on section were very peculiar. It was of a light chocolate colour and very soft, breaking up into layers much like laminated blood-clot. It was everywhere alike. Large veins were seen in various parts.

Dr. Alban Doran, August 23rd, writes from the Royal College of Surgeons, " After carefully examining the tumour I have come to the conclusion that it is encephaloid cancer of the firmer variety. In the centre it is composed of very large cells, very irregular in size and form, and many of which have more than one nucleus. There is a very delicate stroma throughout. Near the surface (where there is no true capsule) the cells are smaller and rounder with large nuclei, but still irregular in size, at the surface they are very flat and long, like epithelial, not like spindle-cells. There are a few arterioles with tolerably stout walls in the interior and some collections of fat granules."

The histology of the tumour is illustrated in Case-book III, page 107, in the workroom of the College of Surgeons. The tumour had been growing for some months. The discoloured skin is seen on its surface.

I have never seen any other tumour which resembled this in general appearances and history, and this is my chief reason for publishing the case. I am sorry that I cannot complete the history of the patient, having lost all clue to her address. It had been growing, I believe, for about a year when she came under observation.



E. Burgess del. et chr. lith.

West, Newma

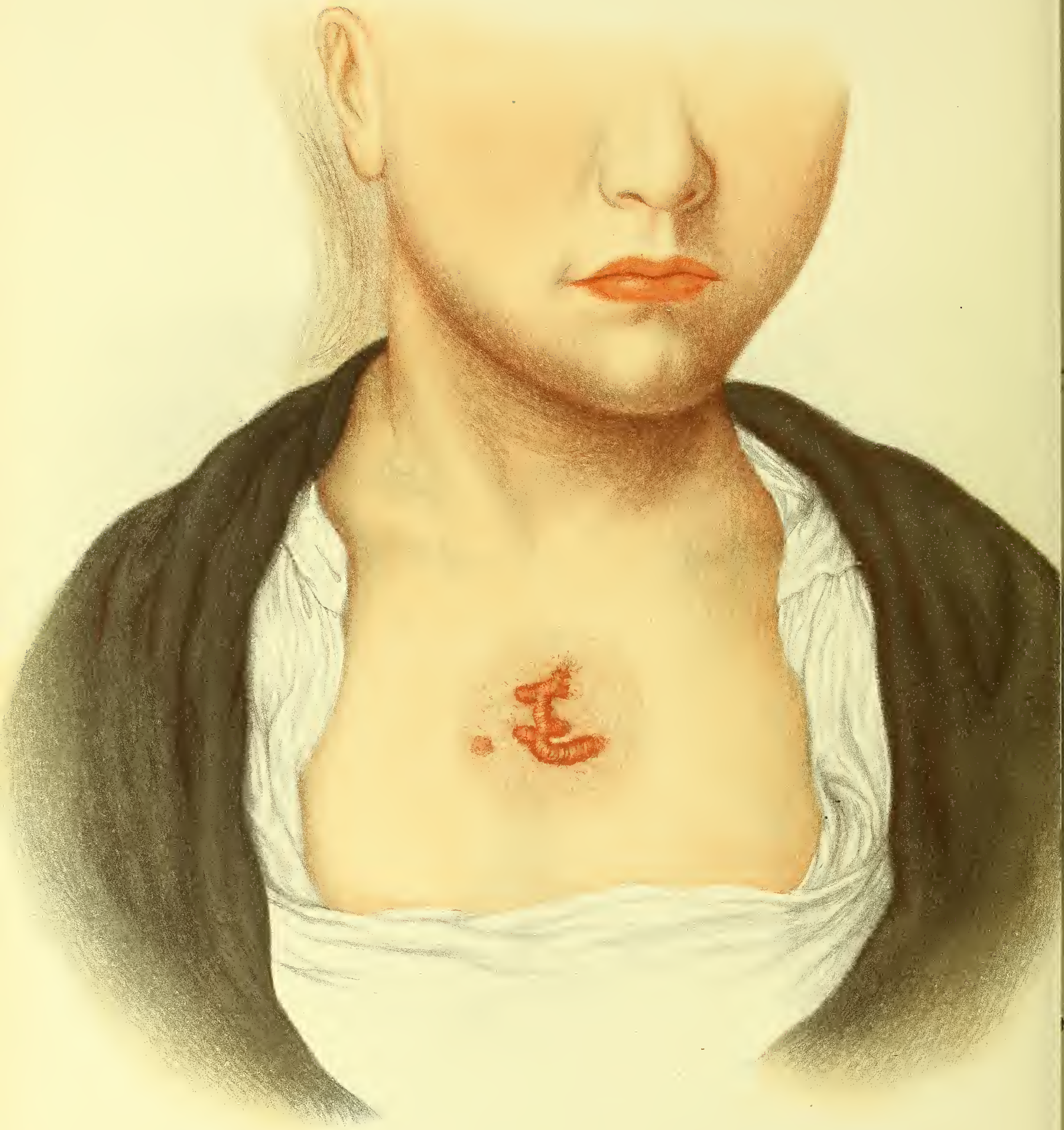
SEBACEOUS CYSTS.

PLATE LXXVIII.

SECONDARY CHANGES IN CONNECTION WITH SEBACEOUS TUMOURS OF THE SCALP.

This portrait shows the back of the head of a woman of middle age. Three separate sebaceous tumours are seen near the vertex in their ordinary condition as smooth, rounded projections.

In them no secondary changes had occurred. On the occiput, however, is a mass as big as an adult fist, consisting of four or five large steatomata which had become adherent. In all of these intracystic growths had occurred, and over the largest the skin had sloughed, exposing the contents in a state of decomposition. After excision these cysts were found to be partly filled by secretion which had become solidified and partly by intracystic which had become vascular. The mass was closely adherent to the pericranium, and its excision involved very free hæmorrhage.



E. Burgess lith.

KELOID IN SCAR OF A BLISTER.

West, Newman & Co.

PLATE LXXIX.

KELOID IN THE SCAR OF A BLISTER.

THE patient, a young lady of eight, had had ringworm patches on her cheek and chest. These had been blistered, and in the scar left by the blister keloid had developed.

I do not know what the exact kind of blistering fluid used was. It was applied at the same time to some patches of ringworm on the hands, and these it cured without leaving any scar. Under the right ear, however, and in the middle of the chest, patches of distinct but soft scar-tissue had been left, and in both of these keloid had developed.

Under the ear the keloid was a crescentic band at the lower edge of the scar; probably here the caustic fluid had gravitated and acted more severely at the lower edge. See Plate LXXX. In the scar on the chest, as shown in the portrait, the keloid consisted of an irregular spur in the middle of the cicatrix. In both places the character of the keloid was well-marked as a smooth, glossy, florid induration. The patches did not itch much.

I do not know that I have ever seen keloid developed in scars which were so thin and superficial. I have no note of the subsequent progress of the case, but have little doubt that in course of time, as in many others which I have watched, the keloid induration gradually melted away.

Fig. 1.

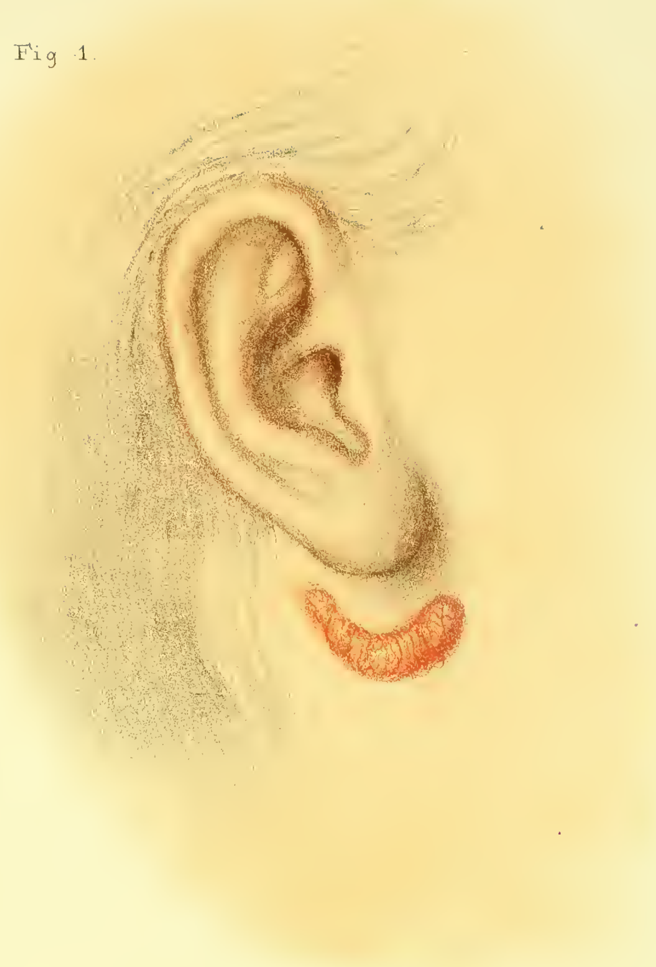


Fig. 2.

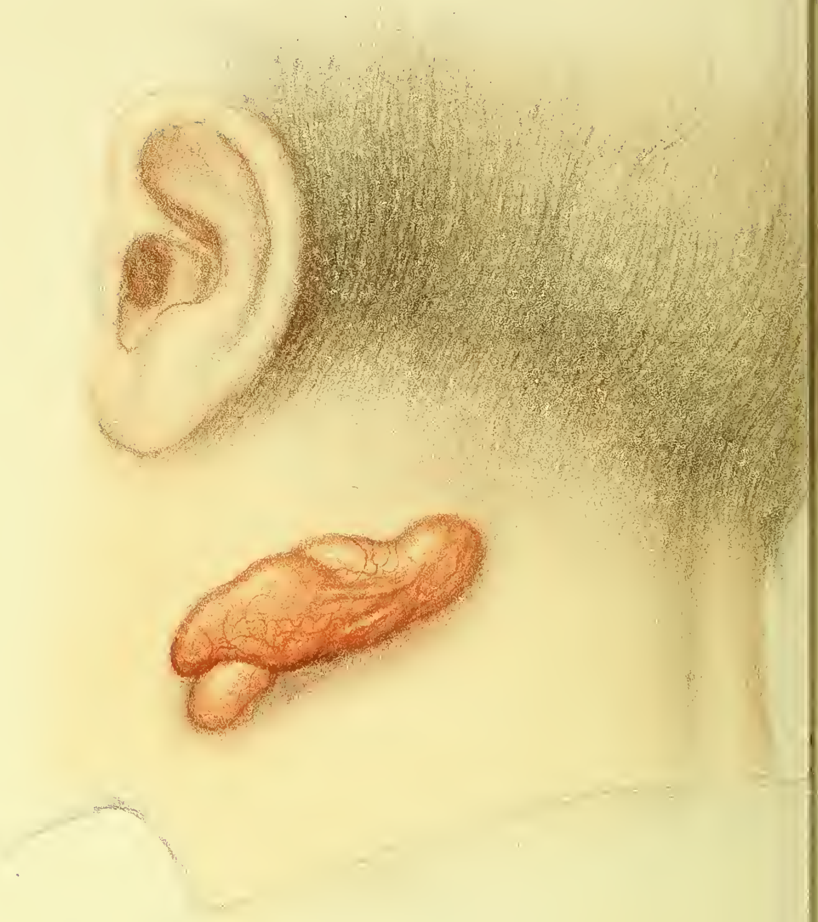
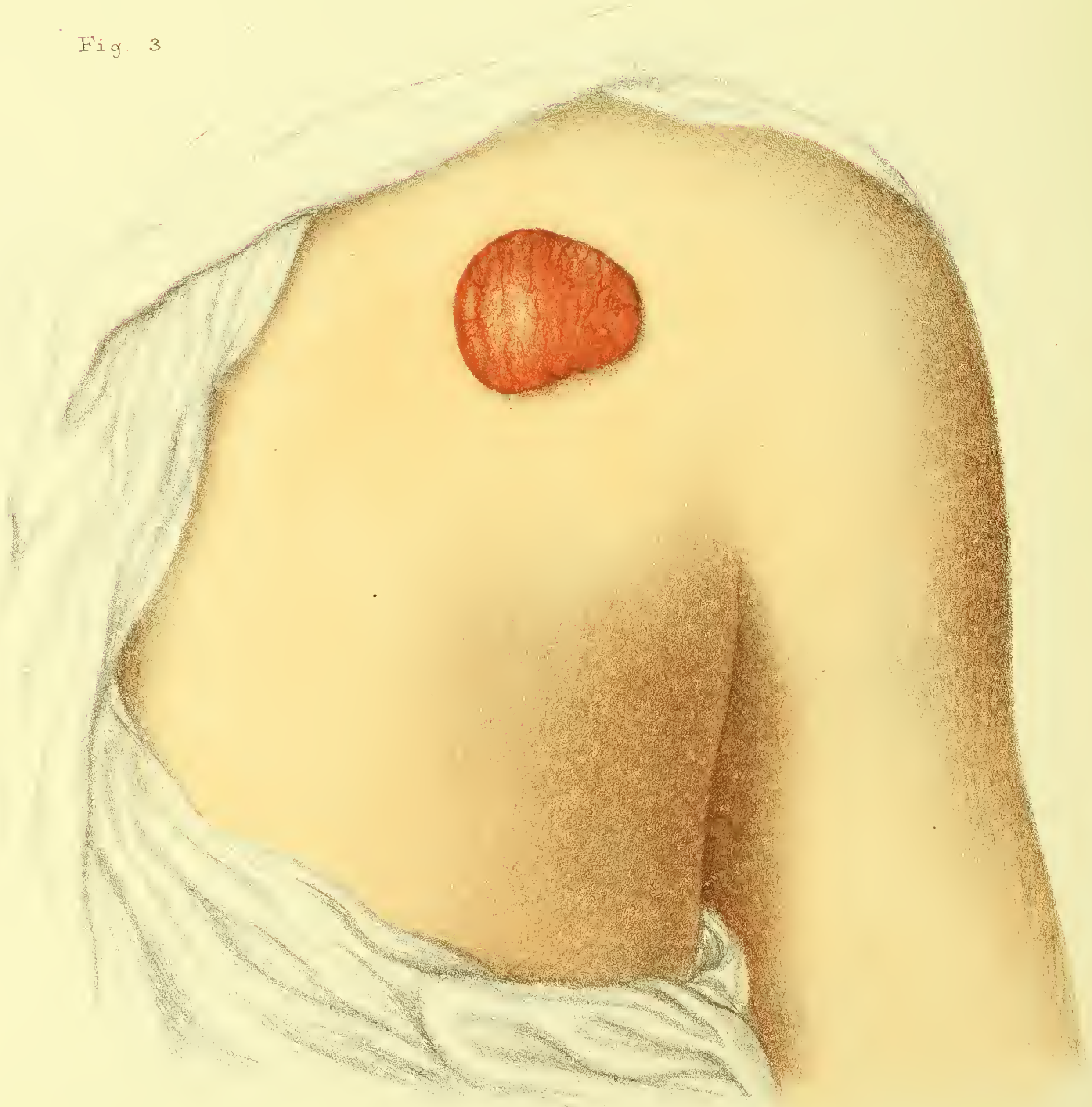


Fig. 3



E. Burgess lith.

KELOID OF SCARS.

West Newman & Cº im

PLATE LXXX.

THREE PORTRAITS OF KELOID.

In Fig. 1 we have a little crescent of keloid under the right ear. It was developed in a superficial scar which had been left after the application of some caustic or blistering fluid for the cure of ringworm. The same patient had a patch of keloid in a similar scar on the middle of her chest, and the condition of this is shown in Plate LXXIX.

Fig. 2 shows an elongated keloid patch on the neck of an elderly man, where it had developed in connection with scars left by boils.

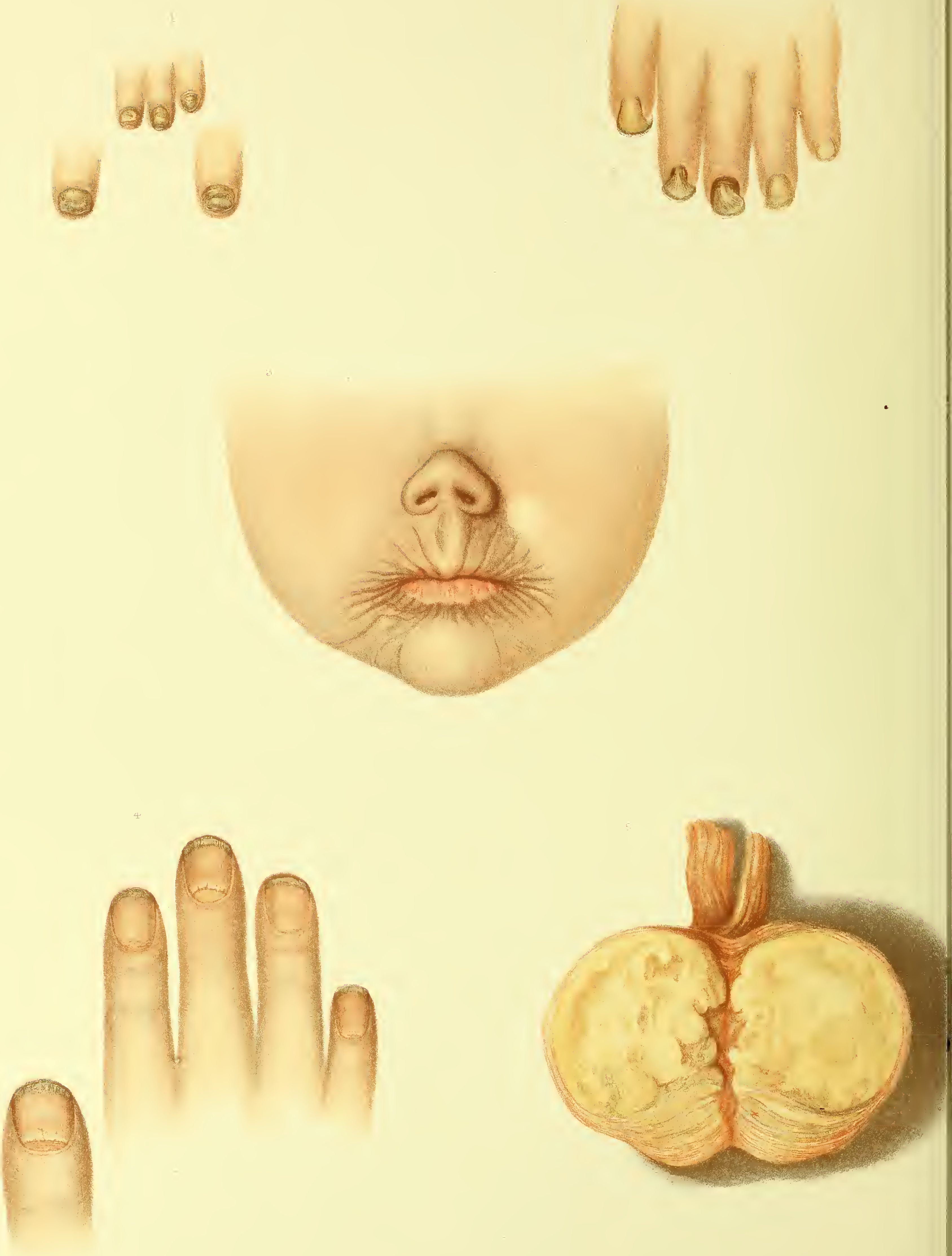
Fig. 3 is a keloid patch almost round, and showing little or no tendency to the development of spurs. It had developed in a young woman of seventeen in a scar on the back of the shoulder. I excised the patch and transplanted a flap of skin in such a manner as to make quite safe against tension. The parts healed well, but I had the disappointment of finding six months later that little buttons of keloid had developed in connection with most of the scars left by the sutures.

No further interference was attempted, and after some years the little growths melted away.

I am a firm believer in two points as regards keloid. First, that a preceding condition of scar is absolutely necessary to its production,—that it is indeed a form of growth which only scar-tissue can produce; and secondly, that although it may grow for a considerable time, it always displays sooner or later a tendency to involution and usually disappears entirely. A few apparent exceptions occur to both these statements. Thus we meet with patients who will assert most positively that they never had any scar on the part where the keloid has grown. These patients generally become positive on this point in proportion to the number of times which they have been questioned respecting it, and one or two such have been brought to me by friends who seemed to think it a matter of honour to maintain their point. My incredulity, even in these cases, is based upon the fact that we often see large patches of keloid developed in exceedingly insignificant scars, and that it is very easy for a patient to forget entirely the existence of such a scar as might be left by acne, herpes, or a small boil. I have often seen keloid in the scars of boils, and more than once in those of smallpox and of acne. It is not uncommon after herpes. The size which the patch may assume has but little relation in some cases to the size of the original scar. It may overgrow the scar and invade the adjacent skin to a very considerable extent. Such was the case in Figs. 2 and 3 of the Plate.

The tendency to spontaneous disappearance of keloid is usually, I think, in ratio with the age of the patient. The younger the patient the more confidently may we predict that the patch will disappear. In many children in whom keloid develops in the scars of burns a tendency to softening is noticed almost as soon as the growth has attained its height, that is, within a year or so of its commencement; within two or three years it is not at all uncommon to witness the entire disappearance of a large patch.

I have seen a few cases in elderly persons in whom keloid patches lasted for many years and showed no tendency to disappear. Dr. Dyce Duckworth has recorded a case in which the patient died with the patch still remaining unaltered.



Burgess del et lith

HEREDITARY SYPHILIS

West Newman & Co chr imp

PLATE LXXXI.

DISEASES OF THE NAILS IN CONGENITAL SYPHILIS AND OTHER SUBJECTS.

Fig. 1. Three of the fingers and both the thumbs of an infant the subject of inherited syphilis. Although all the finger-nails were involved in this case, as in Fig. 2, yet certain definite features of difference between the two portraits are to be observed. Thus in Fig. 1 the affection of the nail appears to begin at its free border, and not, as in the other portrait, at its root. In this respect it more closely resembles what is usual in the chronic onychitis of common psoriasis. The inflammation of the nail-bed is less acute than in Fig. 2, the nails tending to become fibrous and broken, but not to exfoliate.

The patient was an infant of a few months old in whom other symptoms were present at the time.

Fig. 2 shows the condition of the nails in an infant who was the subject of inherited syphilis. The child was ten months old and was still suffering from psoriasis. There was a clear history. The nails of the other hand were similarly affected. The same was the case with some of the toe-nails.

It will be seen that the nails of all the fingers are affected, those of the index and middle finger most severely. The inflammation appears to begin at the root of the nail; it involves the whole of the nail-bed.

The nails have become discoloured, opaque, and twisted. Some of them look exactly as if they had been seized with forceps and nipped across their root ends. This is an appearance which I have several times seen in similar cases.

Fig. 3. The portrait of a young child's face, designed to show the radiating scars which often make up part of the physiognomy of inherited syphilis. The patient was a boy named S. D—, and was fifteen months old when the sketch was taken. He was suffering at the time from a characteristic eruption on the thighs, of which I possess a portrait. He had previously suffered severely from eruption on his face. These radiating scars are to a certain

extent a trustworthy indication of the diathesis. But even when well marked they must be taken with caution unless corroborated by other symptoms. It is possible for non-specific eruptions in certain cases to produce scars which more or less resemble them.

Fig. 4 shows disease of the nails in a young woman of seventeen, the subject of inherited syphilis. The disease of the nail begins on the surface and close to the root, involving the whole of the lunula. In this respect it is exactly like that which sometimes occurs in eczema, and it would be impossible without the history to make a satisfactory diagnosis. It will be seen, however, that in this instance there is no disease of the adjacent skin, and as the patient was the undoubted subject of the diathesis in question it may be fairly assumed that the state of the nails was in connection with it. I have seen a good many cases of inflammation of the nails in the secondary stage of syphilis in young infants, but very few indeed like this in later periods of life.

Fig. 5. A large gumma of the testis from a boy the subject of inherited syphilis. He had characteristically notched teeth. He was about twelve years of age, and died under the care of Dr. Sutton in the London Hospital.

Fig. I.

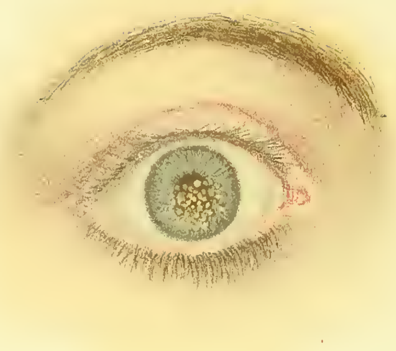


Fig. II.

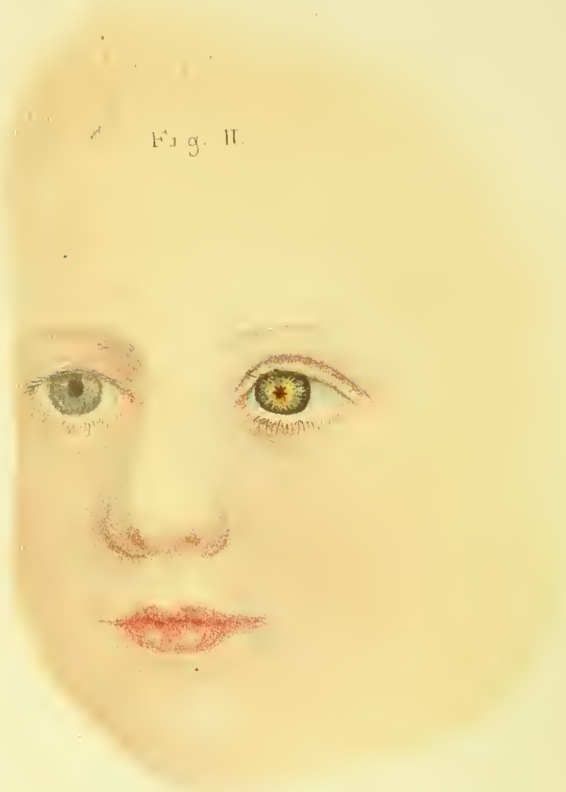


Fig. IIIa

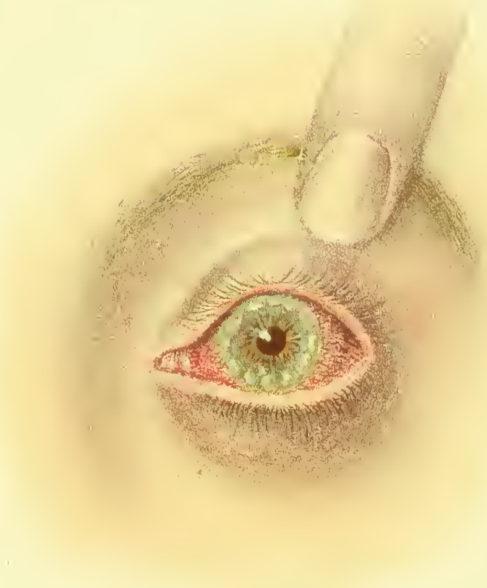


Fig. IIIb

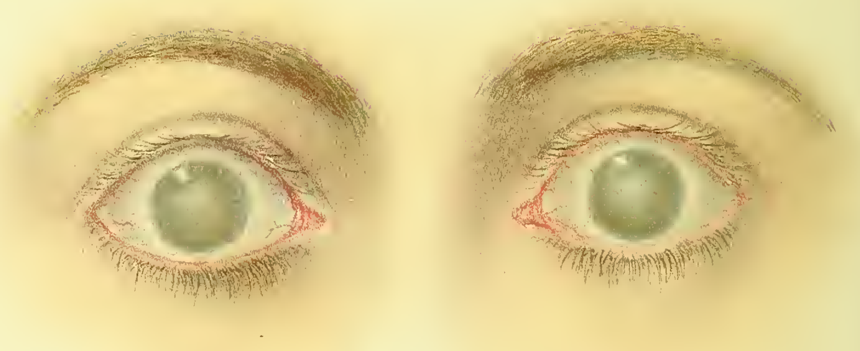


Fig. IV.

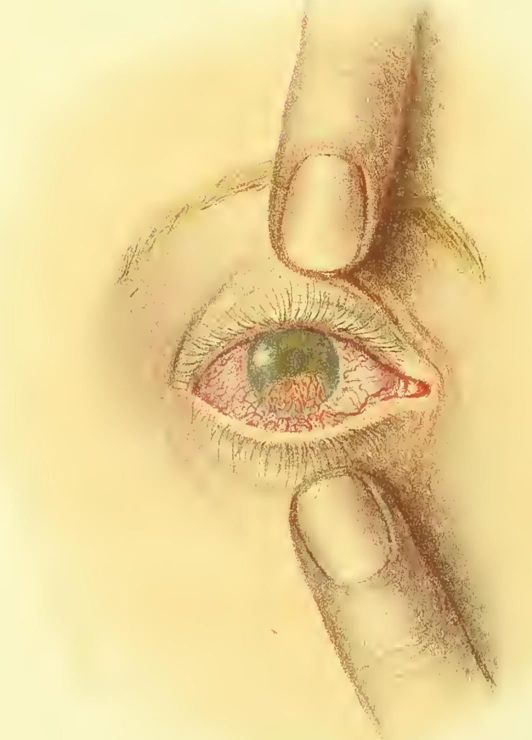
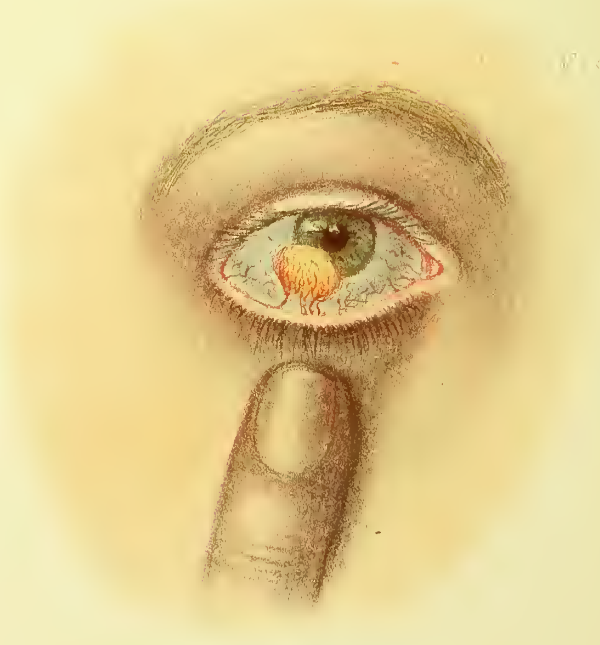


Fig. V.



[illegible] del. et lith.

VARIOUS DISEASES OF THE EYE.

West, Newman & Co. chr. imp.

There are, however, a few exceptions, of which this is one, in which the cornea remains opaque and the patient practically blind.

Even in these cases, however, or at any rate in most of them, a process of gradual clearing goes on for years after the attack. The surgeon must be on his guard against the premature performance of an iridectomy, and above all against tattooing for a condition which, however hopeless looking, may possibly undergo great amelioration.

In the present instance, however, as in a few others which I have witnessed, the opacity was really permanent.

It will be seen that the character of the opacity is peculiar, and very different from that left by the scar of a superficial ulcer. It is in the substance of the cornea, and consists of a cloud which is thickest in the middle and gradually shades off at its edges.

The cornea is, however, nowhere quite clear, and the iris cannot be seen. In most of the cases in which the keratitis is as severe as it was in this instance the iris is probably implicated at the same time.

Fig. 5. This portrait is introduced in order to show what is commonly known as "the salmon-coloured patch," so characteristic of interstitial keratitis. This condition is often developed in the early stage of the inflammation, and whilst the cornea shows only in a very slight degree "the ground-glass condition." The patch may begin at any part, or there may be two or more in the same eye. They are to be carefully distinguished from the fan-shaped leashes of vessels which occur in connection with ulcers. These patches are never fan-shaped, but usually crescentic or round. They may occupy the greater part or even the whole of the cornea. Their colour, which is that of ruddle or salmon tint, is also quite characteristic, and we may note further that they occur on a cornea which is more or less hazy, that no large vessels can be distinguished running up to them, and that they are attended by comparatively little congestion of the adjacent conjunctiva. When magnifying power is used they may be seen to be made up of a close network of minute vessels on the surface of the cornea.

In a majority of cases of syphilitic keratitis the salmon-coloured patch is never seen, a ground-glass opacity or cloudiness being the only condition present. The number of cases in which the whole surface of the cornea becomes vascular is extremely small. This condition is, however, seen every now and then, the surface of the cornea looking like the surface of a plum or a piece of dull red cloth. In these cases the comparative pallor of the surrounding conjunctiva distinguishes the case at once from any form of ophthalmia attended by pannus.

Fig. 6 shows an opaque, vascular, fleshy mass developed over the sclerotic and adjacent part of the cornea, apparently a sort of keloid of a scar.

Fig. I

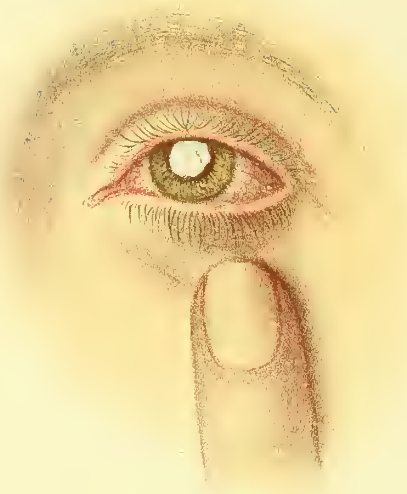


Fig. II.

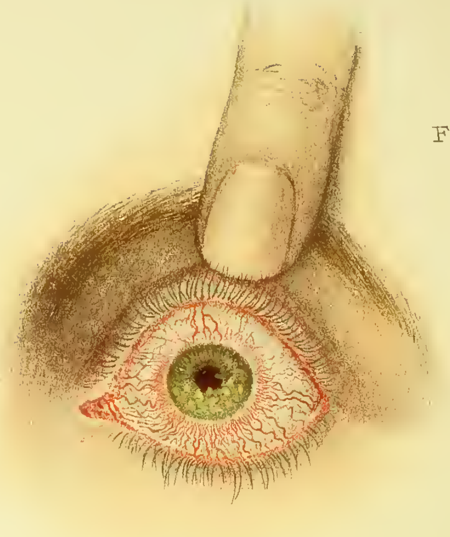


Fig. III.

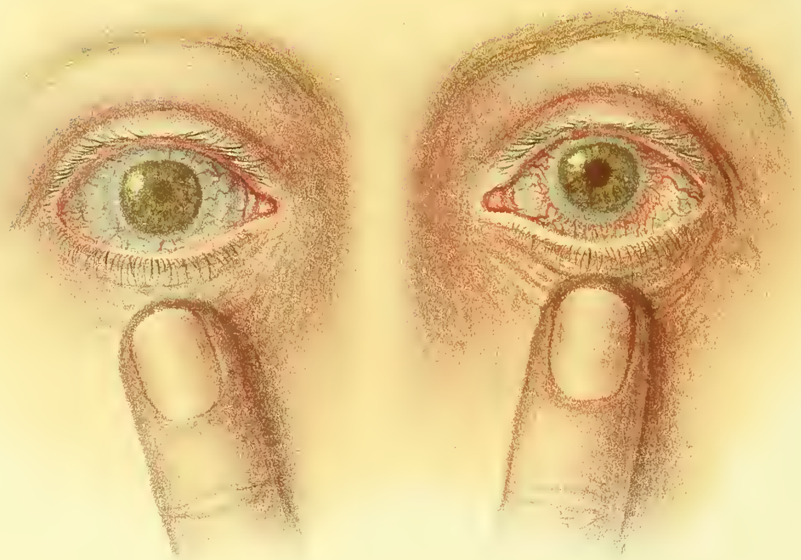


Fig. IV.

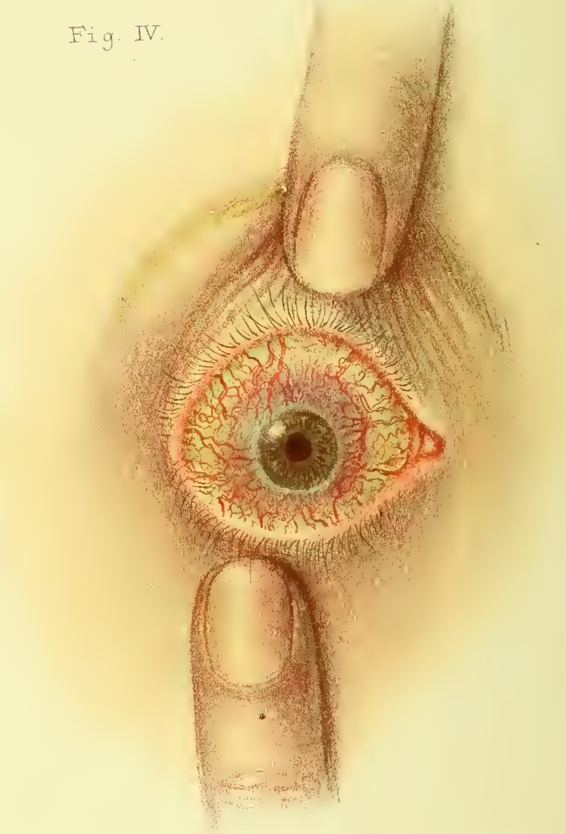


Fig. V.

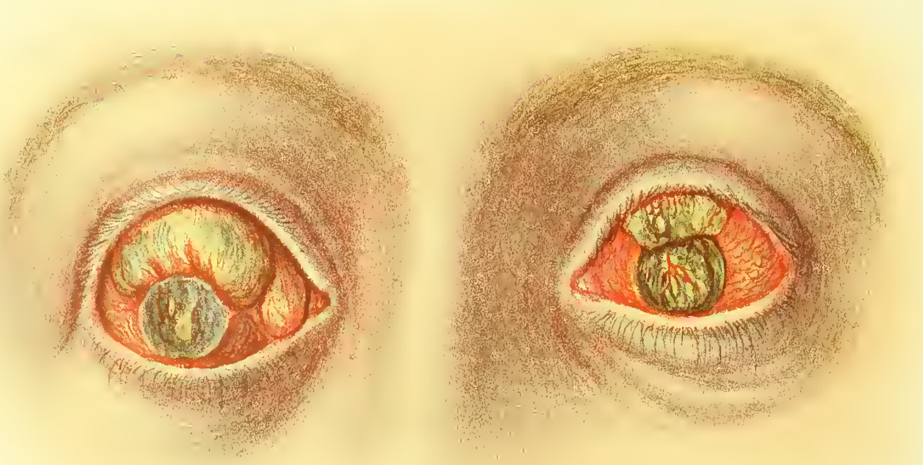
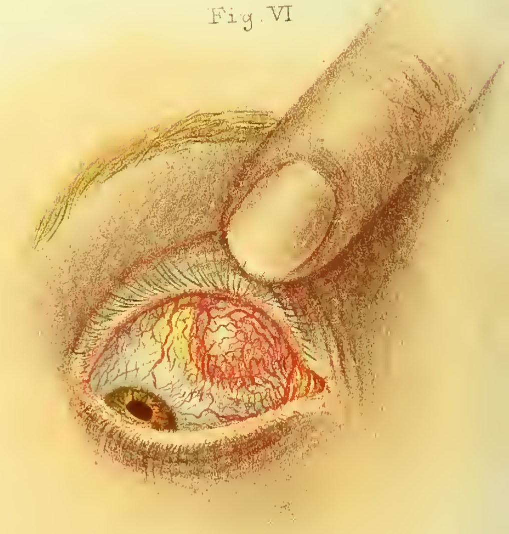


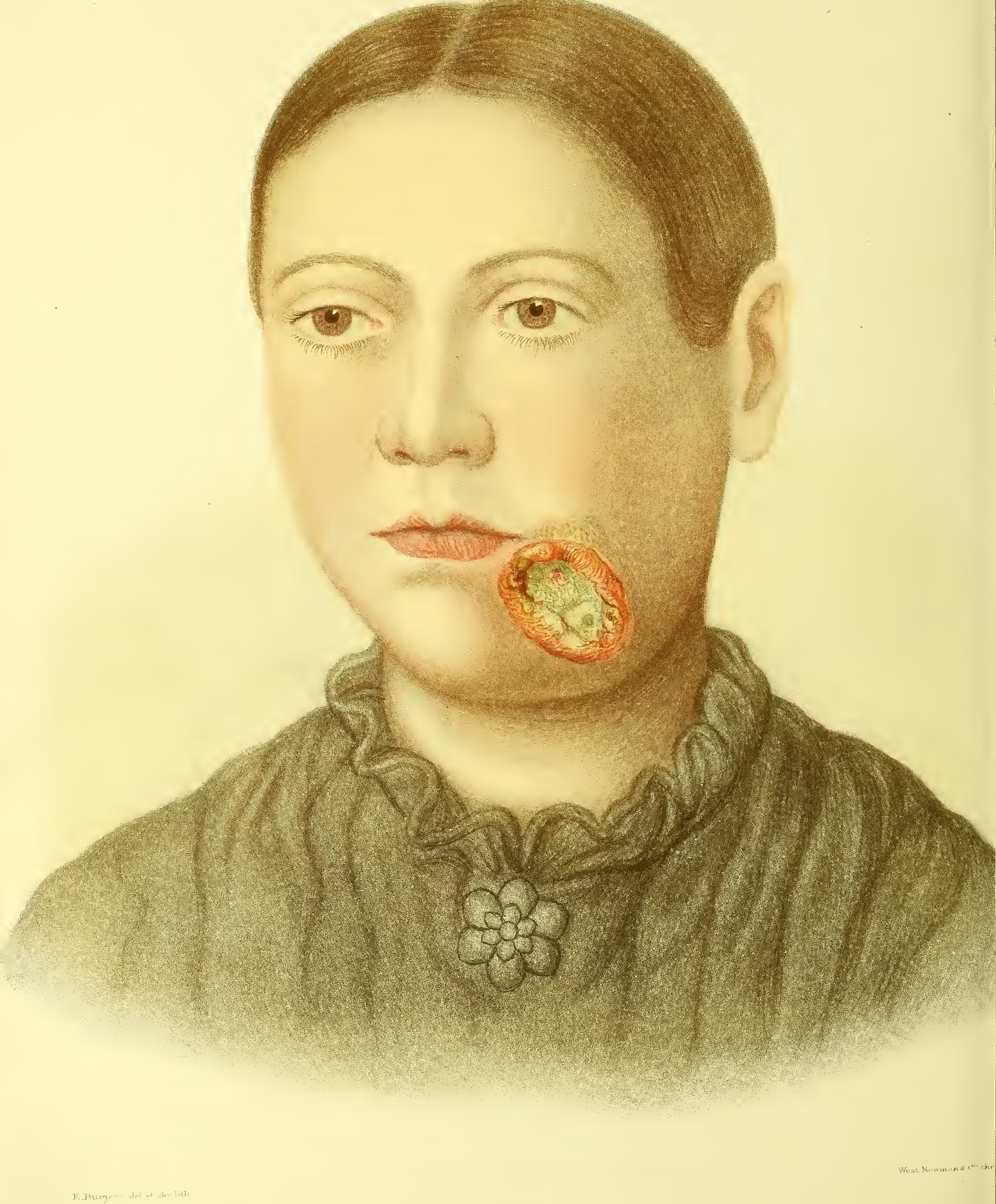
Fig. VI



E. Burgess del. ad nat. chr. lith.

West Newman & Co chr. imp.

VARIOUS DISEASES OF THE EYE.



West, Newman & Co chr

F. Burgess del et chr lith

INDURATED CHANCRE.

PLATE LXXXIV.

CHANCRE IN THE CHIN SHOWING UNUSUAL FEATURES.

This portrait was taken in order to show the very exceptional conditions sometimes displayed by primary sores.

The patient was a young shopwoman, aged 24, who was under my care in private in 1881. The portrait shows the condition of the sore at the time of her first visit. It had then been present about six weeks, and had already had much treatment. She had, when she came to me, a considerable glandular mass under the jaw and ulcers in both tonsils. A general erythematous eruption was just commencing. I could not obtain, either then or afterwards, any clue whatever to the source of infection. The sore had elevated, indurated edges and a grey sloughy base. There could be no doubt as to its nature or that of the secondary phenomena which were just commencing, and I immediately commenced the use of mercury. The sore enlarged yet further during the next fortnight, and became phagedænic in a low degree. I cauterised it freely with the acid nitrate of mercury, and pushed the internal administration of the drug to complete ptyalism. Under these remedies, together with the local use of iodoform, the sore at length took on a healthy action and healed. The glands subsided, but we had much trouble with the sore-throat. Twice, during two successive ptyalisms, the ulcers in the tonsils became sloughy. The remedy which removed the skin symptoms, as is not very infrequently seen, disagreed definitely with the mucous membrane of the mouth. At length, however, a satisfactory cure was obtained, and Miss P— has during the last two years, I believe, been wholly free from symptoms.

I have seen one other case in which a primary sore attacking the cheek attained to a yet larger size than in this instance. The patient was a man under the care of my colleague, Mr. Rivington, in the London Hospital. He was covered with specific eruption, and had a large glandular mass in the right side of his neck. Careful search had been made for a primary sore, but without result. He persisted in saying that his first symptom had been a sore on the right cheek. Almost the whole of this cheek, when I saw it, was involved in an unhealthy ulcer, which was attended by much surrounding swelling and bossy edges. The dates fitted well with the idea that this sore, which extended from his eye to his mouth, and from his nose almost to his ear, was really the primary chancre, and this, after careful examination of the facts, was our diagnosis.